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NEW COMPUTER EXPRESS

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Sword of Sodan



The best
sound and
vision on the
Amiga? *page 16*

AMSTRAD:

Lotus bundling deal looms but staff get the
chop for Christmas - *page 2 & 5*



BAN THOSE VIOLENT GAMES

Guess who wants to kick out the
so-called computer nasties?
Mary W. has her say *-page 6*

Facts, news and reviews for
YOUR machine - *pg 36-43*

**Amiga
Atari ST
BBC
C64
CPC
MSX
PC
PCW
QL
Spectrum**

Do it yourself databases

Those people who moan about not being able to find a cheap business package, tailor made for their own needs should sit down and write one for themselves.

That's the theory of Ecosten Software which is due to launch an Applications Development System which will form the basis for "almost any business application". According to boss Tony Thorne even the least computer literate PC owner will be able to handle the simpler programs such as table databases. The programs will allow users to form a package from scratch or modify some existing programs.

"You need to know what's best for your business rather than how to program. But if you can program then you could be writing very sophisticated applications," he claimed. "Someone poor enough could set up their own software house using the Code Generator."

Ecosten is putting the basic database generator out as shareware and is then selling more programs with manuals at £25. It also hopes that more ambitious users will invest in the £240 full range which are supplied with modified disk source code already generated. Telephone 0481 44955.

HOW IT'S AMSTRAD THE LOTUS EATER

Amstrad is planning to bundle Lotus' integrated package Symphony with its entire range of PC2000s.

Symphony itself has been all but superseded by the £200 follow up Symphosy II. But the package is said to be ideal for first time PC owners. However, experienced PC users may find the 1986-launched product to be outdated.

Amstrad, in traditional fashion, is not prepared to comment on the matter but it is likely that the bundle will be officially announced within the next few weeks. Symphony itself includes such features as spreadsheet, word processing, business graphics, database and a communications package.

This represents a continuation of Amstrad's attempts to lure the upmarket PC user. The launch of its more powerful machines last autumn has been coupled with the ever present desire to offer a package as attractive and complete as possible. Amstrad has customarily found suc-

cess in bundling suitable software with its machines.

When it happens it will be the first time that the two giants have agreed to deal. In the past Lotus has operated a strictly hands off approach to Amstrad's bundling activities.



Symphony: Bundled with the 2000s

Character building

An Archimedes games compilation is seen to be launched which includes the option of creating your own characters.

Repton 3 from Superior sports a screen and character designer which offers twice the resolution of the 286 version. Superior is staging a competition for the best new screen and set of characters submitted with a cash prize of £300 on offer.

The 420 registered entries Repton 3. Around the world in 40 hours, The Life of Repton and Repton Trek Time.



Repton 3: Now here

Amstrad mag trio scooped

The trio of official Amstrad computer magazines have been sold off to publisher Focus for an undetermined sum.

Amstrad PCW Magazine, Amstrad Computer User and Amstrad Professional Computing were published by Database subsidiary Amstrat. They have been sold - apparently for a modest sum - in an effort to concentrate efforts on the firm's 16-bit magazines. What Focus intends to do with the publications is still unclear.

One area of ambiguity is Focus' established PCW mag. Amstrad PCW. It would appear

perverse for one company to be publishing two PCW magazines but Focus has still not decided whether or not to merge the two mags.

"We're quite sure that there is a future in all aspects of the Amstrad market," commented Focus chief executive Richard Hesse. He went on to say that all employees on the magazines would be offered a job at Focus. However, it is thought unlikely that there will be many takers on this offer given that Database is in Stockport and Focus is in London.

Either way Focus hopes to run

the magazines in much the same way as previously. One part of the deal between means that Database gains the rights to ST Update which will now become integrated with ST User.



Amstrad PCW: Off to Focus

Dangerous' hacker banned from telephones

A hacker has been declared so dangerous to the community that he has been ordered to be kept in custody without access to either a keyboard or even a telephone.

Kevin Winch has been charged by Los Angeles Police for computer fraud and faces up to 30 years in prison. The 25 year old's charges include altering a judge's credit record, tampering with his own police files and causing £2 million worth of damage to a computer owned by Digital Equipment.

The Neomancer style hacker was gaining access to unauthorised long

distance codes in Los Angeles and here in England. His crimes date back to when he was only 17 when he connected his computer up to a public telephone and altered people's telephone bills and stole secret data valued at £100,000.

"When armed with a computer he poses a danger to the community," said a magistrate.

The practice of completely cutting off a prisoner's telephone calls is highly unusual and this is believed to be the first case in US law which makes it a crime to enter an interstate computer network for criminal purposes.

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REVIEW EDITOR Andy Stone • COPY EDITOR Ali

Haynes • PRODUCTION EDITOR Paul Lawton • ART EDITOR

Julia O'Shea • ADVERTISING MANAGER Helen Arlett •

MANAGEMENT MANAGER Mark Samuels • AD EDITOR

THEO Jamie Evans, Sophie Lankford • AD TRUCKS

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Tel: 0325 44834 • Fax: 0325 44835

Fox fights back

Business software giants Fox and Ashton-Tate have clashed once again over their respective PC database programs.

Fox last week issued a response to Ashton-Tate's low rank of two months ago which claimed that FoxBase is a rip off of dBase IV. Fox is not only successfully denying all of

A-T's charges but is accusing the firm of misappropriation of Fox proprietary information as well as unfair competition and illegal monopolisation of the market.

Such is the anger in Fox corners that the firm wants all copies of dBase IV to be impounded and destroyed. It also wants substantial

damages against A-T.

Fox alleges that A-T stole some of its ideas while the two firms were on more friendly terms. Fox had originally informed A-T that it would be releasing a product similar to dBase and other negotiations. A-T apparently agreed.

The claims go on to suggest that Ashton-Tate

encouraged other firms to use its products as a basic language base so that it could dominate the market. It is estimated that A-T has 60 per cent of the database market.

Such is the 10000000 nature of these lock and feel cases that this action is likely to run for many months, if not years.

SANYO STORMS IN

Giant electronics firm Sanyo is planning a string of launches for the first few months of this year, including an upgrade of its low cost XT.

Other products on the horizon include a 286 laptop, a laser printer/DTF system, and an Intelligent Disk Server for 286 networks.

The new 6008 XT is the Mark II version of its existing MB16. The 3.5 inch disk based machine will run at 10 MHz and may even be cheaper than the 386 price of \$580. Sanyo though has once again stressed that it does not intend attacking the low cost PC market largely dom-

inated in the UK by Amstrad.

"Our PCs are made with metal cases and are really for those people who want to pay for reliability and longevity from their machines. There is a certain kind of computer user who would rather pay extra for these qualities," said Sanyo's John Culbert.

MC386 Mark II should be first shown at the Which Computer? Show in February with general availability soon afterwards. Higher end machines such as a 20 and 40 megabyte version should also be available then.

The ST386C eight page per minute

laser printer will be bundled with DTP package Timeworks at a price of something approaching £1,600. Sanyo is calling the bundle the ideal solution for those people who not only want to start on DTP but also want a system approaching the quality of Helvetica.

It is being claimed that the Intelligent Disk File Manager will speed up some networked applications by up to ten times. "The biggest problem with networks is having to wait for data to load," said Culbert. "You just have to stick this box into one of the file server's expansion ports and in some cases it speeds things up by ten times." The only bad news about this is that it is likely to cost £5,000.

GOVERNMENT EYES GAMES CENSORSHIP

Young gamers could be banned from buying certain titles, following calls for a government enquiry into computer software violence.

Growing pressure in the United States for a computer clampdown has prompted Conservative MP Geoffrey Dickens to ask the Home Secretary Douglas Hurd to set up an enquiry.

As yet the Home Office has not responded to Dickens' request although it is thought likely that an enquiry will be set up later this year.



• Dickens: Restricting games

Dickens hopes that a censoring board can be put into place similar to those in the film and video industries.

Games which are deemed to be exceptionally violent will be given an 18 certificate with slightly milder titles given 15. In the past, some computer games have been graded but only after being submitted by

the software house voluntarily. The most published cases were CHLN Doodle (15) and Jack the Ripper (18).

"We've got an Act in place to monitor which videos get into the home and I think it wouldn't be such a bad thing to do the same with computer games," said Dickens. "We need a forum in which to view these games before they reach the shelves."

At the time of going to press Dickens was waiting to hear from Hurd on the matter. The board of enquiry, if it is set up, will consist of "experts" such as child psychiatrists and entertainment pundits. If their findings are not favourable then Parliament may well pass an act restricting age groups or even banning some games.

"Children today might see a show-

ased homicide a week on television even before playing video games," continued Dickens. "I think that cheapens life and that is dangerous."

Veronica Woods, founder Mary Whitehouse is also looking to restrict the availability of violent computer games. She told Express: "To produce something which is aesthetically violent is irresponsible. It's crazy."

Dickens felt sure that the enquiry's research would take a very long time. "These things aren't done overnight," he commented. "These are awful things but Acts aren't passed by me sounding off."

Nintendo is the US has recently come under attack for what some researchers described as a lack of responsibility in selling violent games to impressionable young stars.

Stacey II on the drawing board?

Atari is contemplating launching a second ST laptop as a follow on to Stacey - but any plans are currently about as embryonic as they possibly could be.

A handful of industry watchers claim to have seen the design sheet at Comdex late last year with some making direct comparisons with Toshiba's ultra light 1000 portable. Atari UK boss Bob Gleadlow though is bemused by suggestions of a second machine, and is denying any knowledge of it. He suggested that the Atari sponsor might have mistaken the plans for Atari's forthcoming Pocket PC.

Yet one leading computer pundit, though told Express that the unit was extremely unlikely given the culture of those people who have seen the machine's blueprint.

One possibility is that Atari US was simply "tying a knot" in order to gauge instant reaction. This may well have come direct from Atari's technical department "bouncing off". Details are scant although the plans showed the machine as having a hard disk and a blue back-lit LCD screen.



Gleadlow: Atari sponsors' error?

Atari has long implemented the tactic of sounding out the public by leaking plans of forthcoming machines and then seeing how well the idea is received. That though is usually done with machines which are at least in the middle of development.

Either way, one suggestion is that Stacey II will only weigh about eight pounds. Stacey itself weighs in at about 14 pounds and has been in development for 18 months now. Since then, the portable machine has progressed rapidly.

GAMES TOP TWENTY FULL PRICE

1	Operation Wolf Spec. C&A CPC ST, Amiga	£20.00
2	Robotrap Spectrum, C&A CPC	£19.95
3	Wheeler Spectrum, C&A CPC, ST	£19.95
4	Double Dragon Spectrum, C&A CPC, Amiga	£19.95/£22.50
5	Thunder Blade Spectrum, C&A CPC, ST, Amiga	£19.95
6	Ghosts Spec. C&A CPC	£19.95
7	Last Ninja 2 Spectrum, C&A CPC	£19.95
8	R-Type Spectrum, C&A CPC, ST	£19.95/£22.50
9	Football Manager 2 Spectrum, C&A CPC, ST, Amiga, PC	£19.95
10	Game Set and Match 2 Spectrum, C&A CPC	£19.95
11	Pacmania Spec. C&A CPC, ST, Amiga, MSX	£19.95/£22.50
12	Return Of The Jedi Spectrum, C&A CPC, ST, Amiga	£19.95
13	Talk Coin-ops Spectrum, C&A CPC	£19.95
14	Batman Spectrum, C&A CPC, ST, Amiga	£19.95
15	Four Soccer Simulators Spectrum, C&A CPC, ST, Amiga	£19.95/£22.50
16	Falcon C&A, ST	£19.95/£22.50
17	Rambo 3 Spec. C&A CPC, ST	£19.95
18	Elite Spec. C&A CPC, ST, Amiga, PC, BBC, C&A MSX	£19.95
19	Supreme Challenge Spectrum, C&A CPC	£19.95
20	Microprose Soccer C&A	£19.95/£22.50

GAMES TOP TEN BUDGET

1	Joe Blade 2 Spectrum, C&A CPC, ST, BBC, C&A, MSX	£9.95
2	Bomb Jack Spectrum, C&A CPC, ST, Amiga, C&A	£9.95
3	European Five-a-Side Spectrum, C&A CPC	£9.95
4	Commando Spectrum, C&A CPC, ST, BBC, C&A, MSX	£9.95
5	Football Of The Year Spec. C&A CPC, ST, Amiga, PC, BBC, C&A, MSX	£9.95
6	Advanced Pinball Simulator Spectrum, C&A CPC	£9.95
7	Leaderboard Spectrum, C&A CPC, ST, Amiga, PC, Amiga 500	£9.95
8	Ar Wall Spectrum, C&A CPC, BBC, C&A, MSX	£9.95
9	Chessbusters Spectrum, C&A CPC, Amiga, MSX	£9.95
10	ACE 2 Spectrum, C&A CPC, C&A	£9.95

COMPARED BY GALLUP

America's
No. 1

American spots a total of \$1.8 billion on the Nintendo game machine this year making it the biggest selling toy of 1989. Half of the packages were made during the Christmas selling period.

NEW COMPUTER
EXPRESS

OUR OPINION

...And a happy New Year

Superlatively, 1989 has begun much like any other computer year. Amstrad is planning another bundle, an emulated Atari machine is being discussed and the moralists are saying 'Something Must Be Done about violent computer games'. Sure, Amstrad has booted out a handful of staff, but at this stage it's difficult to see that as anything other than the sort of pruning that even the best run companies have to indulge in.

But what makes this year so very different is the general health of the leading firms. Some are the days of the grim reaper calling companies before your very eyes (and before they'd had a chance to supply - let alone support - the products you've paid for). Talk these days is largely of increasing sales - not of re-arranging bank debts.

OK, so some mail order firms have gone to the wall. But, unfortunately, will always happen.

But the truly good news about 1989 is that it is already shaping up to be the most exciting year in computing.

LEAN AND HUNGRY
AMSTRAD CUTS STAFF

Amstrad has ordered a range of job cuts in an attempt to improve efficiency at its Brentwood headquarters.

The action - in a firm renowned for growth not job losses - has surprised observers. In all eight staff have been made redundant including Mike Mordecai a senior figure in the company's software department.

One trade source has told Express that the cuts were a 'surge' of 'survive or die' to be a 'tea shelter' and that the software department especially was undergoing a thorough shake up.

Although Amstrad is known for its ruthless approach to business it is playing down these events. 'I wouldn't

read too much into it,' said a spokesman.

'Amstrad is a fast growing company. We had to stop and say 'hold on'. It was a case of employing too many people.'

'Amstrad has always taken the view that the firm needs to be lean to be efficient. Therefore a career



• Mordecai: Amstrad veteran out

employ people who aren't necessary. It will be no consolation to those people who lost their jobs but the numbers were small.'

Could do better?

Computerised teachers will be pleased to hear that a student report writing package is being launched by Archford House.

Archford claims that with the £60 pack teachers can now compile more detailed reports quickly enabling parents to know exactly what their offspring are up to. Teachers and other educational typists should call 0229 874285.

The return
of Durell

Eighteen months after dipping out of the games industry Durell Software has re-emerged.

This time, the firm which brought you Saboteur and Cosmo Jetix is keeping a low profile and sticking to simply developing games for other companies. For the moment, Durell is working exclusively for Agate Again on Saboteur 3 and Operation Hammer.

Durell's boss Robert White was known to be disillusioned with the rough and tumble of the games industry when he dropped out in September '87. Even now he is reluctant to take the role of software hermit and is deciding to talk to the press.

Agate Again's boss Roger Hulley explained to Express: 'Robert isn't one for the bright lights. He's just working with us at the moment because it means no fuss. It's all clear cut and simple.'

During the past year or so Durell's small team of programmers has been busying away on business projects. It is understood though that White was always keen to make a comeback into games software, albeit at the program-

Amiga portable planned by ambitious US duo

The first portable Amiga is being developed in the US by 'a couple of hackers who thought it would be a good idea'.

It's hoped the machine will be launched in the US at the New York Amifair in March with UK availability planned for early summer. The expected US price is \$2,200.

But the company formed to develop the portable is having difficulty raising cash. 'We're just a couple of Joe Smalls'

computer users who figured that someone would be developing an Amiga portable, so why not us?' said partner Mike Morrison.

The machine - called the Journey Man - is being put together by Rhode Island based Micro Momentums. It includes two 800K 3.5 inch disk drives and a seven inch amber monitor. Plans are afoot to develop a colour monitor.

For the moment the

machine will run off mains supply only, and weighs in at 35 pounds. Micro Momentums also plans a battery operated version later in the year. Journey Man was planned to weigh 25 pounds but the expense of a light carrying case prohibited that.

Commodore apparently approves of the development, having no plans of its own to manufacture such a machine. The firm feels the potential market is too small.

'We've been using Commodore's mother boards and they've helped us out here and there,' explained Morrison.

'But they're pretty much decided to stay out of our way. We've had problems getting money together. It's really been done on a shoestring with the investment so far running to about \$10,000. But we're selling Agate T-Shirts and a calendar to get some funds in.'

(See also Amiga III)

It's Jocky on the Oche for Zeppelin

Caddy darts here and drinking supreme Jocky Wilson has been scooped up by Tyneside based software house Zeppelin Games for a budget darts game.

Zeppelin apparently picked up the Wilson licence at bargain price. At the time of the deal the ample arrow thrower had just managed to put himself through the first round of the British Darts Championship. 'The was looking a bit dodgy at the time but we wanted to sign him up because he represents the character of darts,' said Zeppelin's Brian Jobling. Wilson went on to win the championship.

Jocky Wilson's Darts Challenge is set now on the major 8-bit formats for £2.99. 16-bit versions are not expected.



• Among high: Wilson with the Zeppelin team

Oric owners: Your machine needs you!

Isolated. Oric users grieving the ever dwindling supply of software can take heart that enthusiasts are still doing their bit to support the old machine.

Chesham based Hesse and

General Computing specialise in supplying Oric users with whatever software there is. The firm has just come up with a new adventure called The Last Warrior priced at £4.99.

Ross Alan Whitaker is still looking out for new programs. 'My computer needs new blood to maintain interest and for always on the lookout for anything new from Oric owners,' said

Whitaker. 'I know there are a lot of gifted Oric users and their work would be greatly appreciated by other owners.'

More info on 061 302 7369.



Whitehouse: TV, videos - and new computer games!

Computer games really screw you up?



Operation Wolf and Virtues: Violence on the screen leads to violence in the head, which leads to violence in society. Well, that's the theory at any rate.

That is what a group of campaigners are claiming in the US and here, as the prospect of a Government committee looking into violent games looms.

COLIN CAMPBELL talks to those with the opinions, the research and with the most at stake...

Violence breeds violence I

Of course this is something which causes a great deal of concern, whether it's TV or video or video games. At our very first meeting 25 years ago we said that if you continue to portray violence on a wide scale then you produce a more violent society.

To produce something which is seductively violent is irresponsible. It's crazy. Does it bother you that computer games involve playing an active role rather than just a passive one?

On the face of it that does seem to be worse. But that shouldn't absolve those which you just watch. Either way it becomes a way of life. It becomes like the Romans in the Amphitheatre. Do you agree with the notion of warning stickers?

I think stickers could attract as much as rope. The heart of the matter is controlling it. The Government has committed itself with the Obscene Publications Act due to be heard shortly. We have tried to get this Act to include broadcasting for a long time and we expect it to include video games as well.

First though we need to define the obscenity so that it encompasses violent as well as sexual obscenity. I hope Parliament deal with this in the next session and that the matter of violent computer games is brought forward.

Mary Whitehouse,
Head of the National Viewers and Listeners Association

THE RESEARCH

Conducted by the International Coalition Against Violent Entertainment, the Campaign, which based US opposition. Its findings are based on analysing 95 Nintendo games.

- 54 per cent of the games were based on warfare
- 83 per cent featured violent themes
- The most common war theme was modern war (17 per cent), followed by gang war, futuristic war and fantasy war
- Games picked out as most dangerous were Top Gun, Mike Tyson's Punch Out, Dungeons

and Dragons, Starforce, Sgt Slaughter's Renegades, and boot-em-up Urban Champion

- 90 per cent of eight to ten year olds showed an increase in school bullying on the playground after playing violent video games. (ICAVE accepts that distractions in playground behaviour could be attributed to a myriad of causes but maintains that the long term effect is still present.)

THE REQUESTS

Following its research, ICAVE has made a series of recommendations. These are currently being

disseminated around news media in the US, in the hope of generating a moral backlash.

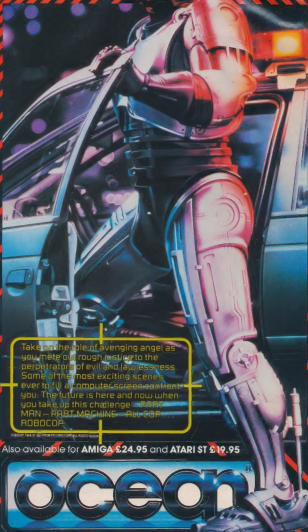
- Principally, the recommendations are:
 - A ban on toys with video games machines
 - The development of games which involve "non-violent means of resolving conflict"
 - Legislation that bans the most violent games
 - Legislation requiring labels on all games involving violent conflict
 - ICAVE stresses that video games are not a form of speech and therefore not part of the American First Amendment which sets out to protect freedom of expression

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All the above QL software is produced by Sector software. Ask for our full guide/pricelist of our QL software.

BULLETIN BOARD

We are now running a Viewdata bulletin board on 0772 454328 8pm to 5am weekdays and all weekends which is mainly QL specific but includes a Z88 section and is soon to include an Amiga section.

We are at the moment writing Amiga & Z88 file transfer software and Amiga to QL software. If you are interested in either of these then please contact us for more details.
We stock too many products to mention in any advert, free have a regular four page advert in QL World each month, so please send us a SAE or give us a ring for our free product guide and price list.

A goods ordering section is now available on the Bulletin Board, so goods can be ordered by Modem.

NORTHERN SINCLAIR SHOW

Due to a lack of previous shows in the North for Sinclair machines Sector Software are to be organising a Northern Sinclair show around Preston in Lancashire (just 28 or 29 Mls) in about March, anyone who would like to be mailed with details or any Spectrum, QL, Z88 companies or peripheral suppliers please contact us for details.

We have a range of QL, Spectrum, Z88, and Amstrad spare parts including service manuals, ring for prices on individual items.

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Violent reactions I

Because video games will be the number one selling category of toy this Christmas we find ourselves as a target.

There is sufficient reason to doubt their credentials about violence in video games. Many of our games offer ample proof of the positive role video games can play in aiding a young person's physical, mental and social well-being.

All video games and much of life in general revolve around opposing forces. It is these challenges which lead to an achievement orientation. It results in the player feeling like he is a hero

and therefore contributes to his self-esteem. This is a constructive and admirable achievement for any young person.

From the time when most people played Coneybees and Indians as children to this present day, no conclusive research has shown that toys involved with violent themes produce violent behaviour.

Peter Main,

Nintendo vice president

Violent reactions II

The player is largely free from loss of attitude or

rejection, the impartial machine being his only grader. In short, video games provide the player with a sense of participation and excitement in a very limited and safe way.

Dr. D.N. Perkins,

Author of Mind's Best Work

Violent reactions III

Beating up bad guys, with one turn taking on all these people in video games, obviously appeals.

Marilyn Sacks-Rabin,

Clinical psychologist



Radical: A scholar for children

Violence breeds violence II

The huge majority of computer games are violent and habit forming. Some kids are spending more than fourteen hours a week playing video games and that's another hole out of time which could be spent usefully. There has no socially redeeming aspect whatsoever. It's a total waste of time.

Isn't violence already part of our society? In fact, hasn't it been such since the year dot?

The killing here is often of a gratuitous nature. On the whole you can't say that about something like Shakespeare - although there are exceptions. For warfare to be glorified like this holds it for our children and for the future of the world. Sure it, we want to make our world a peaceful one? Isn't it absurd to try and produce computer games which don't incorporate violence?

That's nonsense. There are many ways of stopping violence and therefore its harmful effects. Computer games such as golf are very popular. Japanese and American toy companies are making a serious mistake using war and killing as a means of entertaining children. We are forgetting the lessons of World War II and of the numerous smaller wars since that time. Making a game out of killing is one way to infect the world's next generation with a violent way of thinking.

These games are both symbols of the increasing support of violence in our countries and reinforce the dangerous way of thinking. Our governments must find a way to stop this growing trend.

We want the Government to look at this report and we suggest that they reconsider warning stickers on games explaining just what they are. It is the responsibility of elected officials here and in England to stop defective products from reaching children.

Dr. Thomas Radecki,

Research director of the International Coalition Against Violent Entertainment

Violence breeds violence III

I would have thought that a game which involves giving points for breaking arms or cutting off heads isn't the most sensible thing to be made available to children. We've got an Act in place to monitor which videos get into the home and I think it wouldn't be such a bad thing to do the same with video games so that they pass tests. We need a forum in which to view these games before they reach the shelves.

What sort of games do you object to most - military games in general or those which involve graphic violence?

I think the latter because war games in a sense involve planning and defence but it's different when you're scoring points by cutting people's heads off. It's very possible that the drip, drip, drip of violence has a bad effect. But psychologists no doubt differ on this issue.

When I was a youngster the only violence I saw was at the cinema on Saturday mornings with the Lone Ranger or space-west. But children today might see a thousand homicides a week as television before playing these games. I think that changes life and that is dangerous.

Imagine a child playing a game like this with his friends and becoming astoundingly good at it. He might come around to wanting to really break someone's arm.

What do you propose to do?

I will be speaking to



Jack the Ripper: Will all games have to be classified like this in the future?

THE RECORD INDUSTRY

Two years ago a small posse of Congressmen's wives campaigned against what they saw as obscene or obscene records. Their area were broadly similar to those of NCVC.

Finally they wanted particularly 'offensive' records to be completely banned both from the airwaves and from record stores. Also, they campaigned to have warning stickers placed on records which allegedly included obscene references and, more usually, bad language.

The Washington Women's campaign was covered extensively by the press and radio in the States; the record industry crumbled. Certain records have since been banned, with many more showing warning stickers. The upshot is that bands contemplating recording songs which might have offended the Washington Women had better not have their eyes on the main market.

BANNING: A CASE STUDY

Wangmakers are a sensitive issue in West Germany due to the still raw memory of the last war and the ongoing underflow of neo-Nazi supporters. MicroProse has been fighting in the courts for some time now (unsuccessfully, incidentally) to overturn rulings on its games.

But what happens if a popular game becomes illegal to sell? Can any banning measure ever be wholly effective?

According to MicroProse banning simply leads to a lot of grey imports, under the counter selling, and worst, illegal copying. It is impossible to say how much of this goes on as a result of the banning, says the firm, but the German piracy problem is much worse than ever at one.

The software house loses out and yet the game is still reaching those people from whom it is ostensibly being protected.

MAINTAINING STANDARDS

I am the owner of a PC with a Hercules graphics adaptor. I have found that there is a minimum amount of games software available for it.

I would however like to complain about the state of the documentation accompanying the graphics adaptor. It seems that software producing companies are intent on making it as difficult as possible to find out which adaptor may be used. I find it much better if the graphics adaptors were clearly stated on the

OUTSIDE of the box, stopping the needless roving for the piece of paper that gives the nearly useless information "For use with: Composite colour, composite mono, colour monitor, mono monitor".

A clear list of graphics adaptors consisting of Hercules, CGA, EGA, VGA or similar is surely not too difficult to achieve for your games reviewers. If a PC game is reviewed, a list of compatible adaptors would be much appreciated. The same applies if a PC version is available for a game being reviewed on another format. Matthew Miller, Clifton, York

CRACK TO THE FUTURE

Crackers – will they damage the software industry? What a weird question coming in a great deal of software houses' games writers learn the finer points of their craft by cracking games from great writers and leaving from their discoveries on more economical forms of coding, structure etc.

Not a few computer journalists have also cracked games. Other people have cracked games to "hobble" them – "Hobble test" pokes etc. and sell these through the computer magazines or send them to mags in the hope of a prize. I myself have done this and won a prize on your sister/brother magazine, AGE.

The point is there is no harm at all in the practice. Without it there would be no decent software writers and hence no games.

The harm to the software industry is when money changes hands – selling your legal copy of Super Cosmic Mega Starliners and retaining a copy for yourself as a wrong on bootlegging disk programs to sell on a large scale. The purists in the Crackers Kingdom seem to be the only people who crack games out of academic interest and the challenge. When they swap disks no money changes hands. OK, the software houses lose a few sales, but this is what they have to pay to eventually get competent staff. When did you see a major software house for advertising for untrained programming staff? Doug Griffith, London W6

✓ **Good point.** To an unacceptable extent, software houses do benefit from having computer-orientated programmers who have gained their skills through cracking. And it's true that many non-fun games players have had their fun enhanced by useful tips and the like.

It only becomes dodgy when games are passed on for nothing which otherwise would have been bought. Talking of which...

SIMPLY CRACKERS

First let me wish you a happy New Year. Thanks for the new magazine, the first I have bought regularly since Personal Computer News died. Back from the clattering pit on the back I have written in response to your article about hacking software. Not because I am a hacker, but because I have an opinion.

About two months ago, I bought an Amiga 500 as an upgrade from a CPC 464 and DOSI system. I kept my DOSI 3000 printer and, after a few teething illnesses, I added it to the Amiga for word processing which is my main use for my computer.

In your recent article on the merits of various computers you recommended

✓ The vast majority of PC games will run on any graphics standard. To put it another way, all the PC games we've reviewed in Express so far will run in all the various modes. Should a game appear that specifically requires – say – VGA, then we'll say so.

In our experience, business packages usually are quite explicit about which standard is needed. But do point out any specific offenders you come across.

the ST and PCW even the Amiga for word processing. I never have been interested in the "my computer is better than your computer" myth argument. The best is obviously the one you have. After all, ST software is no use to me.

When does hacking come into this you may ask. Originally I bought a sub-key Spectrum 5000 2B because a relative had a Spectrum and some software which I could copy. When I upgraded to the CPC it was to have a better printer for word processing. I outgrew the small memory, my main output being science fiction novels. The £100.00 price, also by Amstrad, put me off buying the PCW and the recent drop came too late. I decided to buy an Amiga because, yes, you've guessed, I had access to copied software.

I now have 26 copied games, some transferred onto a single disk, and three pieces of software which I have bought. There are benefits the free disks from the dealer and two PD disks. I also have a disk of disk copiers. Most of the copies have been hacked in some way and I admire the skill of hackers as they are much younger than me I shall for school. For instance, on CT there are various faster letter combinations which come up when the CT disk. Battle Chess needs no password from the handbook, and *Manoah 2* also has password free. The point of my letter is that FAST and the commercial games writers are wasting their time whingeing on about software theft. I can afford one of their ridiculously overpriced pieces of software about every two months. This is the answer I buy. They lose no money, and the hackers encourage me to buy the Amiga at the first place.

If I had gone for something else, or the software had been impossible to copy, then the magazines, the disk safe manufacturers, the blank disk manufacturers and the software producers, would have lost a considerable amount of revenue from me. I have spent more money on computer related items for the Amiga in the last two months than in the last year of owning both the ST and Spectrum +2.

I say I am a hacker. It's the only way many of us will get to use the range of the software. The ones I have are Star's Tale, Rocker Ranger, and *King of the Hill* for your recommendation. All three were excellent buys, and of the copies, I may have bought *Carrier Command* and *Mercenary*. The rest are rarely loaded and the disks will eventually be used for my files.

Spectrum and CPC a lot of software is crap. The good stuff will always sell. Bill Cox, Murbok, Derbyshire

✓ **There are a number of peculiar points here. Firstly saying "The best computer is obviously**

the one you have" is like if you have a computer and are satisfied with it. But if you're a potential first time buyer or an upgrader – like many Express readers – then just an obviously you need all the help you can get. If that comes in the form of "My computer's better than yours", then so be it. Preferably, that help will come through dispassionate analysis in Express.

Secondly, on hacking – or more accurately in this context, piracy – your arguments are shot through. Code breakers may well have extraordinary talents and be very young. On that basis, a six year old who could pick pockets would also presumably be admirable.

Also, you indicate towards the end that you may indeed have bought a couple of games you obtained illegally.

Yet you say that software houses lose no money via hacking or cracking or piracy. That doesn't stack up – and maybe it explains in part why games are "over-priced".

EVEN MORE CRACKERS

In reply to your article on the "Game-busters" in issue 6, it is my opinion that as crackers make no profit, it is just a leisure activity which affects nobody. Some people like to play games. These people like to crack/improve them. Somebody says the original, so the software houses get their money, and I don't think that they lose a claim against these people.

You asked the question, "will this mean less money to produce innovative software?" I think not. As these people do not resist copies of the games they have cracked, then I think that this question should be directed at printers. Then the answer would be yes.

Also, I have just purchased an Amiga 500, with mediator, software etc, and after trying six copies of *Acad's Sky Fighter*, we still did not find a working copy, it is this a common problem? I was lucky and exchanged it for *Reck of Ramgar* which is brilliant. Keep up the good work on the mag is good. Robert Fitzpatrick, Swansea, Wales

✓ **We've said our piece on crackers for the time being.**

Your *Sky Fighter* problem is news to us. If you are experiencing these sort of difficulties, you should phone Anco on 0322 92513. Ordinarily, we would have found out for you, but Anco was unavailable when we phoned. You see, the peculiarities of magazine publishing are such that we're putting this section together at 3.30pm on Christmas Day. That, of course, is a lie. It's 3.20.

WITH AMIGAS LIKE THAT...

Recently, after weeks of decision making, I bought an Amiga 500 in preference to an Atari 520ST. Suddenly people around me started saying that the Amiga had no future. They said that it wasn't very clever in its country and would soon be discontinued, like the A1000.

To add to my worries, I hear that this new ST plus is coming soon, it is true that the ST plus will cost £4000! This is the case then has the Amiga had its chips?

As complete beginner, I know nothing about the 16 bit market. Could you tell me how the launch of the ST Plus might affect the Amiga? Now, could you tell me how popular the Amiga is worldwide and what kind of future it has. Thanks! An Amiga owner, Glasgow

✓ **What rumour chains you have around you!** The Amiga isn't as popular as the Atari ST in the UK, but there's no way it's going to be discontinued in this decade. Current sales in this country are around 50,000, with total worldwide levels approaching one million. That means that it has a healthy future regardless of what Commodore or Atari may do. Software houses and peripherals firms will not walk away from these figures in a hurry.

As yet, there is no estimation of the ST Plus' price. Indications are that £400 sounds a little bit optimistic – though that may well be typically smart Atari pre-launch disinformation to make everyone fall over in surprise when it is, indeed, finally revealed to be £600.

It is true that to a limited extent the ST Plus will affect sales of the Amiga. But more likely, both machines will do well by enlarging the market rather than competing directly with each other.

MORE +2A PROBLEMS

I purchased a new Black +2A Spectrum last month. I thought it was just the new problems (locking software – being very new to computers – and I read Roger Marshall's letter in *New Computer Express* issue 6.

Someone lent me a selection of games. The chess was no problem but *Back to the Future*, *Pipekick* and *Pipekick II* caused difficulties. For example a *Back to the Future* you are supposed to be Marty McFly and keep George and Lorraine together or else the family photograph will disappear and you will cease to exist.

It could get so happen was for Marty to walk up to happen – then the photograph vanished and he was zapped With Raydover it seemed to load OK but then the screen went back to the Amstrad 1982 again.

My computer is not very fancy. I have been learning a bit about programming and finding this very interesting. I must admit being very disappointed with my +2 and wondering if I should have spent my money elsewhere! K.M. Wither, Clonmel, S. Hants.

✓ **In the absence of a satisfactory explanation from Amstrad, it looks as though you may have been landed with a bit of a soft. As we can do repeat error comments that +2A owners could ask software retailers to run any program they intend to buy on the machine before they actually pass over any money.**

THE REAL THING

Congratulations for all the attention you've received since your first computer review when I wrote about the Commodore 64.

My own computer is a Commodore 64, and I'm a big fan of the Commodore 64. I've been using it for a long time, and I've been using it for a long time. I've been using it for a long time, and I've been using it for a long time. I've been using it for a long time, and I've been using it for a long time.

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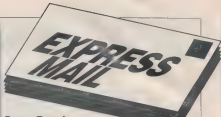
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Dear Reader

Why don't YOU make a contribution to the Britain's best, most up-to-the-minute computer forum? Whether it's outrage, angst, humour, pleas for help, or closely-argued opinion, we'll read it and, most likely, print it. You might even win one of our famed mystery prizes. Write to:

Express Mail, 4 Queen Street, Bath, Avon BA1 1EJ

GRAPHIC DETAILS

Not too far back in the day and I bought a Commodore 64. I was actually looking at a Commodore 64 and I was looking at a Commodore 64. I was looking at a Commodore 64 and I was looking at a Commodore 64. I was looking at a Commodore 64 and I was looking at a Commodore 64.

Well, it's worse. I've had my Amiga since then and I've got loads of games but I still the same old story - well, almost. My point is that, games have got to have depth, challenge and strong graphics.

Anyway, I've found my lesson. I was going to say Rocket Ranger this month but I think it's by Nebula or Goldfinger. I don't know.

C.A. Hensley, Midland, West Midlands

One of the problems in the early days of 16-bit machines is that the programmers and software houses appear to have fallen over themselves in wonderment at the increased graphics potential. More thought was put into the look of games and less into the content. It has improved since then, but coming up with innovative, interesting scenarios really isn't that easy.

MSXcuses

Yes, yet another MSXer, and by now you will know there are considerably more than the 14 that had written to you by your 4th issue.

Maybe unusually for the Japanese something in the marketing of the MSX hardware in this country went seriously wrong. At the same time, the software houses have made little effort to understand and use the system, resulting in a poor supply of a poor standard of software, and some of that being not compatible over the whole range of MSX models. Also, perhaps understandably, those few well-washed virtuosos were either very reluctant or in the case of Sir Clive Sinclair very scolding, on the selling of a standard.

Yet the incident near selling of a business computer standard by Big Blue in spite of their protectionists, demonstrates how many makers of machine all using the same standard could benefit the consumer.

The MSX Basic was arguably the best of its time and development to MSX-2 makes it perhaps still the best around - e.g. the considerable graphic and drawing capability are the simplest to use. And with what other Basic programming can you display a picture from television or video, or put 256 different colours anywhere on the screen at one time!

Probably, the last mistake was not using the MSX-2 for the MSX deal in this country. In 85 the only comparable model was the Amiga 1000, which could not have been compared on price or availability, although its performance was potentially much greater.

Meanwhile, as David Webb so rightly comments issue 51, people have been kind to spend more money on computers than 16-bit stuff instead of being able to update or expand what they already have.

Given that the potential of a 16-bit system can be greater than that of an 8-bit, the sales potential of new and specific 16-bit micro computers has been fully explored, yet the capability of the 280 and 486 is a standard system with less money-making potential than the 280. The 280 can address 4MB and there are no 16-bit home business or games or graphics using that. The Konami MSX card games are quite able to the graphics of the 16-bit products and the Konami products are equal to the music and sound capability of the Amiga 500. You might need add-ons, but not a whole new outlay for a whole new system.

However, accepting that your gentle MSX knocking might be tongue in cheek, Express gives excellent coverage of the computer scene and excellent value. D.E. South, Southampton, Hants

Don't blame the software houses for the failure of MSX. They're interested in producing games for a sufficiently large installed base. It is not up to them to help make that base large enough to be economically viable to produce games on. MSX 2 may well be a superior system and have other general advantages over existing formats. But if the numbers aren't there and you can't be there, it's all a little bit irrelevant, really.

BOUQUETS AND BRICKBATS

I have at last decided to do a letter to you in paper to write to your magazine. I enjoy New Computer Express immensely, the high street shopping part of your 'which computer' article was absolutely brilliant! I agree with your choice of the best buy in computing as the ST is a good buy for the money, guess who has an ST and is glad he got one.

The magazine is generally excellent. Perfect word processing (issue 21) and the above two, make good examples. The news section is the best I've read and the argon burner section is fairly useful (that good, eh) - Ed.

Only a couple of comments though. The words 'for reviews are laid out often only to run of the rest computer magazine' - I'm sorry because I get sick of every new computer, just growing increasingly about 'our reviewing system is the best' when most of the time the reviewing system is just the same old system rehashed slightly.

The only review system that I think has the right to say this is A2X with its system of assessing how long it takes to learn about this latest and dastling which computers a little bit will be released as and when. I'm afraid your system comes under the rehashed system but at least it doesn't suffer from the 'Oh dear these colour pictures have faded to black and white' syndrome which so severely suits me all.

Once the real reason for my letter. The games that take over your 'the section grabbed me by the shirt and cuffs and said, 'No! My man, these are your sort of games'.

I have had large chunks of my life swallowed by this sort of game. You got the feeling of getting your money's worth, you don't get the 'Yin-Yang' in this adventure' or 'I can't get past this multi-faceted experience of a mother ship' in addition you also get the adventure flowing almost as fast as in a shoot 'em up and use the Intel Dungeon Master.

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Alas, the reason for my letter. The games that take over your 'the section grabbed me by the shirt and cuffs and said, 'No! My man, these are your sort of games'.

I can't emphasize the addictiveness of these games enough. I enjoy the old school, but up there on the MSX being one of the addicts here I but am nearly as long looking.

David Southall, High Wycombe, Bucks

Saying that games reviews are laid out differently to other magazines appears a particularly modest sort of claim to make. It really isn't the same as saying our approach is better, regardless of whether or not we might believe that.

So in the true spirit of goodwill to all men, if I caused any offence - I'm sorry.

+3 HELP WANTED

I do not yet own a computer but with the help of your cover feature 'Which Computer' I decided on the Spectrator +3. Your magazine is very good and I unlike other information magazines.

Can you please tell me where I can purchase the Tandyword word processor? Can you please tell me if I can run it on Spectrator and where and for how much I can buy it?

Colin Sullivan, Kilburn, London NW6

The miffy little Tandyword should be available through most decent independents. Failing that, try contacting Tandy itself on 0532 438301.

Our ST is indeed available for the +3. But you're probably better off buying Games, the US Gold company, from the game plus Gamers & Rollin' Thunder, California Games and T20 Degres, it costs £19.99 for the +3, and it'll be a major achievement to find any software seller that isn't stocking it. Otherwise, try US Gold itself on 021 3562388.

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			Crusade 102	19.95	13.50	Phantom Heart	19.95	13.50	Ultima 105	24.99	16.50
			Crusade 103	19.95	13.50	Phantom Heart	19.95	13			



DUNGEON MASTER

MIKROSOFT

Amiga £24.95/£6k
Already out on ST

The definitive mix of RPG and Adventure arrives on the Amiga and it's a degree of excitement matched only by that generated by its ST parent. We reckon *Dungeon Master* looks like a straight port of the Atari version released in May 88. Does it matter? Or should we expect more from a conversion that could have significantly enhanced all the enduring features of the game, one that's guaranteed great sales throughout the Amiga world?

● GAMEPLAY

You play an apprentice wizard following the footsteps of 24 other adventurers who've valiantly failed in their attempt to remove your master's fireball from the Dungeons of Lord Chaos.

After a short walk in the labyrinths, you come across portraits of these brave losers and can resurrect four of them to join you in your quest. They act as your agents in so far as they're in the firing line for various confrontations you encounter. Each have specific attributes: such as health, stamina and mana (magical energy), that hopefully improve during gameplay, so you can choose which one is best suited to solving the particular task at hand.

Every injury, use of weapons or magic will result in a corresponding drop in that character's attribute level, so if one becomes too debilitated in any respect it's best to rest them for recuperation and put another at the forefront of any encounter. If it's safe to do so, you can speed this up by commanding your entire party

to sleep.

As your mission requires heat as well as fire, you need to choose a team that combines skills in fighting, wizardry and first-aid. In return, you have to keep them fed, armed and equipped with supplies found throughout the maze.

The *Dungeon* comprises 14 levels of corridors and chambers in which there are a multitude of messages, objects and secret doorways to find, at the same time as dealing with invading, monsters and mummies. There's also a fair smattering of logic puzzles and riddles which require varying degrees of reasoning. Add to this the need to cast a range of magic spells and you have all the essential ingredients of a large fantasy adventure - so it's a good job you can save your position at any point!

● GRAPHICS AND SOUND

Dungeon Master's screen consists of control icons surrounding a central window which quickly redraws when you click its direction pointers. Attribute and inventory information is displayed in pop-up windows. Although effectively conveying the mystery and scale of an immense underworld, against *Goldberg's Domain* the visuals look distinctly staid and somewhat repetitive.

So, although they're nicely done, there's little in this version's graphics to leave you spell-bound by the superior graphic power at an Amiga. But then it's the strength and longevity of gameplay that's the central factor here. Ambient sound is sparse but spot effects are great. They add tremendously to atmosphere.

● OTHER VERSIONS

The ST sibling is outstanding and has sold in droves - Microsoft claims it's been bought by one in five owners of the machine.

● EXPRESS VERDICT

Dungeon Master will surely become the quintessential role-playing game against which all others are judged. This is a testament to intricate design with enduring consistency rather than audio-visual excellence. Whilst there's little as the market to touch it - well let's be fair, only one other release of note - *Dungeon Master's* purchase that I have you labouring through its labyrinths for months and months.

★★★★★

Andy Storer

• You can eat those trees



• Getting the run-down on a colleague's state of health

● A couple of Amiga bitters hit the headlines this week, both in from the States and both due out soon.

Sword at Sodor brings you giddy graphics and snazzy sounds while *Dungeon Master* - well you must have heard of *Dungeon Master*.

You'll probably sink in the depths of despair with 20000 Leagues while you're submerged in sub-aquatic searches.

But if it's a good old spot of sport you're looking for then there's *Skatoball* and *Skate* or the two addictive little numbers that make Rollerball look like *Tiddlywinks*.

On the board game front there's *Archon's* shoot-em-up strategies and finally *Gauntlet 2's* 8-way scrolling maze mayhem. So, no turnkeys after Christmas! Which is probably just as well.



Arcade adventures go down a storm with the French, and this one goes deeper than most. Will the conversion of Verne's classic to code plummet to new depths, or surface with major sales? Maybe it's just drive you round the bends.

● GAMEPLAY

This is dead existential, isn't it? You play Professor Archon, who, along with his servant Counsel and bargainer Red Lind, has been abducted aboard the submarine Nautilus by Captain Nemo. Your mission, of course, is to escape from Nemo's clutches, and you do this by solving all the pertinent information you come across in your notebook, compiling a map of the sub's progress, and exploring Nemo's library for clues. But watch out - if you're too curious you get condemned to quarters. Counsel suggests to succeed you'll need a fair degree of education, deduction, courage, dexterity, attention and sense of psychology. All which we can only add advice.

● GRAPHICS AND SOUND

Usually, *20000 Leagues* is very complicated. It has beautifully drawn Borgois interiors and subtle use of half 19-screen windows depicting localised information and



● OK, so you're above water, there's no Captain Nemo - but that's the least of your worries.

action in animated form. Sound is confined to the spot effects from core objects encountered and activated.

● EXPRESS VERDICT

A curious release requiring an original approach to puzzle-solving. Besides needing to search for particular information you also have to contend with the varying moods of Nemo himself, and in this sense *20000 Leagues* is probably unique. The aim is not as much to locate, examine and use objects but to perceive, assess and utilize information. If you're a confirmed adventurer then *20000 Leagues* will have you re-experiencing the style and content of every game you've played.

★★★★★

Andy Storer

SWORD OF SODAN

DISCOVERY SOFTWARE INTERNATIONAL,
USA

Amiga CD32/386

Sodan is the pseudonym of a demo creator from Denmark who has produced some of the best Amiga demos that far. So it was only a matter of time before he extended his programming skills to writing games. *Sword of Sodan* is the result and is imported by Gainstar, Unit 1, Bear of 7 Wellington Road, Sandhurst, Surrey GU17 8AH. Tel: (0252) 877431.



• Has our heroine met her match?

● GAMEPLAY

Sword of Sodan follows the route of the horizontally-scrolling hack-and-slash, playing in a similar fashion to *Barbarian* by Palace Software.

Taking the role of Brodan or his sister Shandan (the software version at this release), you'll have to travel through 11 individual levels battling against a myriad of hideous and horrifying creatures ranging from gargoyle-like monsters to complete with Mexican harlots to flying dragon grubs with an unhealthy taste for your flesh.

As well as wielding a sword you'll be able to pick up potions (after you've destroyed the odd beastie) to give you goodies such as an extra life, power shield (limited invulnerability) and a magic zipper (lets the enemy close to you).

Wide use of these extra goodies is an important fac-



• These two zombies have just wiped you out

tor in whether or not you'll reach the conclusion with the evil necromancer and topple him from the throne of Loran.

● GRAPHICS AND SOUND

The really impressive aspect of *Sword of Sodan* is its amazing audio-visuals. From beginning to end you're presented with superb images matched by fantastic sampled sound effects.

When you start each game you're greeted with a brilliantly drawn screen representing the hero and heroine, accompanied by a male voice asking for your choice (this male voice acts as a 'Dungeon Master' throughout the game, giving hints and tips as you start each level).

Starting play provides you with the first glimpse of the starting graphics (and sound), as you witness your loathsome high spirit engage a horde of equally large guards to the sound of 'Hell's Bells'. That's just the start,



• This pho-wooping woodcutter is about to get his just deserts

though, because you'll visit levels of outstanding audio-visual quality which will leave you gasping and your Amiga's friends giggles with envy.

The only slight visual niggles is a limited number of sprite animation frames, but this is a really minor flaw when compared to the sprites' size, definition, colouring and sheer imagination. Sprites are switched by the impressive backdrops, which are so detailed that you don't notice the game's respectable programming - including parallax scrolling foreground elements.

The sound effects are all high-quality samples and consist of the usual 'warrior-type' grunts and groans complemented by extracts of speech by the aforementioned 'Dungeon Master'.

● OTHER VERSIONS

No details of *Sword of Sodan* on any other home micro format are currently available.

● EXPRESS VERDICT

Sword of Sodan has superlative audio-visuals which give an indication of what the Amiga is capable of when someone actually bothers to delve into its inner depths. What *Sword of Sodan* doesn't have is varied gameplay, though the desire to see the next level overrules this lack to such an extent that you hardly notice.

A touch overpriced, *Sword of Sodan* is nevertheless a worthy addition to any Amiga owner wanting to discover and display its fantastic audio-visual capabilities.



Rik Haynes



• A whole new meaning to 'nightclubbing'



• A near-perfect blend of strategy and shoot-em-up action. This game plays better than it looks.

The Archon Collection is a compilation of Archon (a classic and hugely successful combination of strategy and action) and Adept: Archon II (a slightly less successful follow-up).

● GAMEPLAY

Archon places you and a computer-controlled opponent for another player in a two-player game in control of the forces of either light or darkness in a fight for ultimate supremacy.

Play consists of moving your forces (pieces) across a chessboard board with five flashing squares. The aim is to capture all five of those squares, wiping out all the enemy pieces or imprisoning the last one.

When one of your pieces attacks an enemy piece the view of the board is replaced by a fighting screen where you have to battle (shoot it out for the lack of better terms).

Adept follows a similar approach but lacks the excitement of Archon due to its stronger strategic flavor.

● GRAPHICS AND SOUND

You can see and hear that Archon's roots date back to 1983. It's too primitive by today's standards, with unfettered sprite designs and animations and mundane sound effects.

Adept fares no better - both titles could do with a great deal of improvement in audio/visuals.

● OTHER VERSIONS

The other versions look and feel like the Amiga version. It's the gameplay that counts in this release, anyway.

● EXPRESS VERDICT

The Archon Collection contains a classic computer game (Archon) which would attain a five-star rating for its gameplay. Adept is slightly less impressive, but is still down by its poor-quality audiovisuals which could and should have been upgraded to Atari-level standards.

★★★★

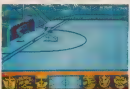
Rik Haynes



Fancy a game combining soccer and ice hockey with the kind of friendly player interaction to be found in Rollerball? Look no further.

● GAMEPLAY

You choose a team of four players to act as reserves for



• You're the one in goal just about to get spread over the back of the net.

your assault upon the computer/other player opposition guarding their half of the pitch, in this footie/hockey kick-em-up. There's a whole host of on-pitch obstacles to keep you on your toes, too.

After a while you'll realize that the computer is far more accomplished at ball control than you, and that your only chance is to hit whoever your opponent at full force whenever he nears the ball. Yup, there's no rules in this game. All you have to do is score four goals, which will see you through to the next level. Which isn't so easy, since your opponents are the meanest sons of bitches this side of 2999AD and only too willing to tell you at the slightest excuse.

All this adds up to a game which will keep you riveted just in terms of sheer rowdiness alone. Play a game against a friend and it's only marginally less likely to end in bloodshed, since violence rather than sport is the operative mode of the day.

● GRAPHICS AND SOUND

Each level is preceeded by a brilliant horizontal scroll to show you the state of the pitch. As the pitch usually comprises horizontal obstacles of varying descriptions, this is absolutely essential. Animated sprite action is fast and smooth and compares admirably with the best of Spectrum graphics. Sound is confined to the minimal bongs you've probably heard on Amiga demos.

● EXPRESS VERDICT

A frustratingly addictive notion that I'll have you coming back for more. Skateball Skateball will test your psychic and keyboard skills to the limit as you bang, kick, slip and score your way to the top.

★★★★

Andy Storer



• Punk skaters get down to some serious bopping.

Electronic Arts is risking its reputation on skating being 'in' this week, but that may not matter as C&E Skate or Die was a great success last year. Presumably EA's hoping the same thing will happen with the PC version this year.

● GAMEPLAY

Starting in Rodney's Skate Shop, you're given the choice to compete or practice in five events: pool quest, down hill race, high jump, jam and freestyle. In this one or two-player keyboard or joystick-wagging sportsman.

During play you'll need to perform a wide range of skate tricks such as kickflips, asexuals and handplants

(nobody over the age of 15 should know what these tricks actually are).

● GRAPHICS AND SOUND

Skate or Die's CGA graphics and PC soundeffects are fairly adequate, but the EGA version supports some attractive sprites and backdrops.

● OTHER VERSIONS

The C&E version is fairly superior to US Gold's 720° in graphics and presentation, and includes a superb Rob Hubbard soundtrack on the 10-disc set.

● EXPRESS VERDICT

While C&E Skate or Die was an all-round great release, the PC version suffers from inferior graphics (no CGA), sound and playability. That said, Skate or Die can provide an enviable jam, pump and coast, and is a good game for the younger PC'er.

★★★★

Rik Haynes



• Spot the difference between this and the ST version.

Gauntlet II finally makes an appearance on the Amiga, some six months after its release on the ST and about a year after the 8-bit. Has it been worth the wait?

● GAMEPLAY

Gauntlet is a conversion of the fantastic Atari/Int'l coin op, where you take the role of either a warrior, wizard, elf or valkyrie in an epic journey through monster-riddled, ogreway scrolling mazes, frantically searching for hidden treasures, spells and food for improving your energy rating.

Each character has its own idiosyncrasies, such as faster movement, better use of magical spells or more powerful weapons. So deciding on the right character is the key to success in the game.

Adversaries ranging from gnomes to invisible wizards will try to deplete your energy rating until you're dead, and on top of this each maze has its own selection of other hazards such as moving walls, electrified floors, and traps hiding more hordes of unfriendly creatures.

● GRAPHICS AND SOUND

Gauntlet II on the Amiga is a straight translation from the ST, unfortunately. The sampled sound-effects are slightly superior, but the sprites and backdrops are identical.

Overall, though, the multi-manuals do manage to capture up the essence of the arcade game quite well - although the scrolling is somewhat jerky.

● OTHER VERSIONS

ST Gauntlet II is much the same as the Amiga version. The 8-bit versions can now be found on the compilation Gaunts by US Gold, which also includes Out Run, California Games, 220° and Rolling Thunder.

● EXPRESS VERDICT

Gauntlet II is a reasonably good arcade conversion. The trouble lies in the competition. Rainbow Arts' Garrison I and II (both Gauntlet-type games) were programmed specifically for the Amiga, and thus out it features to better use.

Still, Gauntlet II does have an edge with its scrumous four-player option, although it'll cost you around £30 to get fully kitted out with the extra three joystick (plus about £10 each) and the adaptor (£25.95).

★★★★

Rik Haynes

DOS or bust

Part VI: The Amstrad army marches on its stomach for fights. This time, as William Poel relates, it was taking on the PC world

I was the summer of 1985. The PCW was beginning to race away and create one of those sporadic shortages of Amstrad computer products we've come to take as part of the marketing repertoire. The blackboards at Amstrad were covered in details of shipments on the high seas, and the names of the lucky outlets allocated to receive them were chalked alongside.

The famous 2" disk suddenly became rarer than a silver journalist at a press reception. The whetting and dealing that went on in certain corners of the plastic gold was pretty outrageous, and Amstrad held the whip hand by tying up supplies with only two sources. At one point it was ship-peg around a million disks a month, and making a seriously large amount of money out of each one, a sum not insignificant to a pound each in the heyday of the 3" shortages.

It was a classic case of supply and demand, and would it all be glad if such an opportunity presented itself to get rich quick? Business, yes, in they say, good.

LocalSoft turned out to be remarkably popular with the masses who didn't read computer magazines and so didn't realise that they ought to be looking it impossible to use and positively antiquated. The early version was fairly quickly superseded by the 1.2 edition, which then remained remarkably unaltered until the actually new version 2 appeared much later.

However, with that little lot out of the way and now a matter of production and shipping, there was the big soup of 1986 to consider.

Fiddling STs

During the summer of '85, I managed to take my way into getting hold of one of the very first Alan ST systems in the country. I connected a tale about being a software developer, and paid over the money when I went to collect it. I personally set this up outside my office and had a fiddle with the GEM desktop.

At the time, it was the only piece of software around, and the machine was so in complete and unfinished. It was plainly do or die for Alan: if it had to ship such dreadful examples (even to developers).

More teapots, Vicar?

A little-known fact is that Amstrad has occasionally dealt in products other than electronics. At one time, it was a major supplier of teapots from the Far East to major department stores in the UK. If the Hong Kong office finds a product with a potential for a bit of profit, then the arch market-buster of Mrs Thatcher's vision of GB Ltd is gone for a price.

Mr S came stomping round on one of his tours of inspection. He is fond of strolling around the office, and manages to appear just as the very moment that you might be getting out of the window and trying to seek respite. This time he caught me fiddling with the ST, and decided it to be of no interest as it would not be serious competition for at least two years, if that. And he certainly wouldn't authorize Amstrad to pay for the thing for as to someone and consider.

So I flogged it as a bit of a loss, but not to a genuine software developer, Micro, which has since made a handsome living from the Alan ST marketplace.

At this point, I guess Mr S had made the decision to shelve further development of the home computer marketplace with the CPC series (and it still amazes me how much life there still is in that system). But competition for the current ST? You have to be joking!

However, the GEM user interface set no thinking and when the expected IBM clone project was got under way we mentioned the man from Digital Research (which simply could not believe its luck at being able to get money for the continued sales of the very long as the tooth CPM operating system on the CPC and PCW systems).

The man from DR was accessible faced that there was not a single IBM PC or compatible in the company. So he duly hauled an AT up in the UK, and set up a presentation of DR's attempt to go back at Microsoft for cloning its bright as a starburst operating system supplier. In addition to GEM, DOS Plus was mentioned, and at a price that would be hard to refuse.

Discussions with Microsoft at the time were proving (as they always are) to be tedious and unfruitful. Microsoft had yet to be properly convinced by the Brexovian Beanie Boys (I must remember who coined that delightfully appropriate phrase, I think it may even be the publisher of this noble organ in the formative years as a hack on a trade magazine).

However, MS-DOS was an American as apple pie, so when the UK market was being weighed up, Mr S concluded that the only expedient thing was to supply MS-DOS. The deal with DR had

been signed, so the product went along with both operating systems. Most agree that, as ever, the DR product was the more elegant and interesting, but elegant and interesting 1986 put no money in the till, do it?

So meeting the stick with which he was going to thrash Microsoft into a pulp by launching the machine sporting DOS Plus, Mr S got Wild Bit Games and the Microsoft crew to come down to a deal that was acceptable. Mr Sugar unleashed his famous 'longer a mile talk'.

Poel position

I only wish I had still been around to witness the encounter, since on November 5th 1985, I retired gracefully from the frenetic world of Amstrad to pursue the market for CPM software for the PCW856. Another element entrenched in my decision was a statement from Alan Sugar that Amstrad was not interested in supplying PC software. And since I had got up with the crap and all the business that long previously got a crack at the fat portions of the PC software scene, I felt I might as well move off, as my small contribution to the specification of the PC1512 project had been made for the year.

The CPM opportunity arose mainly because no one else would take it on, and we had a commitment to do so in order to justify the claims in the ads that the product was indeed a computer cape.

The Alan Sugar Story



• Sugar: Never mind the 1912's plastic, just look at the sales

like of running three billion pieces of software.

So, DR was naturally absolutely thrilled to bits to be reborn as the role of the malcontent at the dance by this move, and barely made the most of the opportunity to slap GEM.

The PC1512 project proceeded apace and, as ever, the original specification was hardly touched in order to ensure that the product turned up on time (and if it didn't, then no-one had any excuses). Amstrad duly threw no existence, the press duly retired to bed.

I could spit. Not only had Amstrad done an about face on the statement from AMS that it wasn't going to get embroiled in PC software, after trying to get blood out of a stone when looking for CPM software to run on the PCW, the once utterly pitiless task of Amstrad software management was now one of playing the role of

WordStar is born

The big con was when Amstrad produced WordStar 512 out of the hat. I don't think I had better say anything about it for fear of rebellion, but suffice to say that WordStar 512 was the phenomenal reincarnation of a product called Easy that was written in Modula and bought in a while before by MicroPro in the US. It bore virtually no resemblance to any of the other products bearing the name of WordStar, and thus presented little in the way of serious upgrade opportunities.

But marketing opportunities is what it's all about at Amstrad, and a move by any other small would still be a move, wouldn't it, old son? And so a product whose total world sales had hitherto been counted in tens, suddenly rocketed to number one volume seller, thanks to the name and the Amstrad marketing muscle. Oh yes, and a small thing called a "deal or agreement" which required Amstrad dealers to take stock of their software if they wanted to get shipments of hardware...

Lord Bountiful: The world of PC software, utterly flooded by the phenomenon of the PCW, began to form a disreputable queue outside the doors of Brentwood House.

Various big names presented themselves at the feet of Amstrad in supplication hoping for a few crumbs to tumble from the table, as it was becoming widely perceived that the Amstrad PC was going to open up a whole new vista of software bounty for the so-called budget market. A few big 'uns noisily did not know themselves wholeheartedly at Amstrad and in marketplace. Lotus remained aloof, but I guess that a wily shortly have a go at seeing what happens when you give Amstrad a good product to recycle and resuscitate. Symphony I looks to be on the inside here.

Amstrad's 540-45 with Sorbus was a brief and elegantly accomplished affair. That's one of those

things that it would rather not talk about, but Sorbus once again proved it in after showing faith with Amstrad and the PCW. A just reward for "bring there" and a new lease of life for an otherwise discontinued product.

Development of the PC5152 family was relatively uneventful. The custom chips got ever more complex, but in terms of massive design these really wasn't much scope, with the objective of IBM compatibility dictating everything about the design.

Sure it could go faster, which it duly did with a novel 8086 design from the arch innovators at MIT, who had previous experience with a PC go-faster board called PC Express.

Sure it could be the first all in one PC, PSB in the monitor case. Sure time with an embedded connector that looked like something connecting two spacecraft after earlier complexities.

And job in a release. After all, they need not cost the £300 or so being asked at the time, and Amstrad's Hong Kong product duty costs around \$5 to waive.

But the incorporation of the CGA screen driver on the main board was perhaps the beginning of the decline in Amstrad's computing perceptiveness, and the first slip back into the old penny-pinching days of audio. Because this meant that the PC5152 family could not run an EGA monitor and software. And EGA was just coming up to being big business.

Disunited States

The first foray into the US was with the CPC6128 at the May '85 Comdex Show in Chicago not being a learning experience for all concerned, and nearly as dreadful as everyone imagined. The grand fans of the exercise was to give Amstrad a localised introduction to the perils of doing business in the US which it never forgot.

Amstrad never quite got it together as hard data rather initially a choice an unreliable source (see page 1) supposed, and at the outset expected only 15 per cent of machines to be shipped with hard disks. I seem to remember suggesting being prepared for 40 per cent at that discussion with the technical director - guess who was proved right?

Still, the main object of the exercise was to tap the market with price, type and advertising. And this lot would do nicely, thank you.

Cobbling nonsenses

The first all-plastic IBM compatible PC and successor made their invariable way to an even more class and timeless product launch at Westminster. The young assembly in three events was growing ever larger and more notable, so it's a shame that Alan Sugar was willing to put his name to the launch of probably dreadful old cobbles that provided a PR man's view of a sense of shame.

However, the product survived even this nonsense, and Amstrad's PC1512 sales intention was superbly crafted and written and included the novel idea that the price should be hidden "because you won't believe them". And, more again, the old tape magazine did its best and the public lapped.

Amstrad has managed to create and reach sought to the heart of yet another new market for its products. •

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First on the Line for 89

This week we make a beeline for Reline's imports and cop a couple of nouveau beau jollies...



SILKWORM REBEL

A horizontal scroller where you battle your way through fleets of invisible launchers, tanks, helicopters and jets. Team up with a friend and take control of a chopper and jeep in another of those deeply meaningful encounters, with modern tech settings.



ZAK MCKRACKEN AND THE ALIEN MINDBENDERS

LUCASFILM U.S. GOLD It's 1997 and aliens have built a stupidly machine that's reduced everyone's IQ. In single digits. You play the role of Zak who, appropriately enough, works for a Sunday Sport type rag, and along with a bunch of other mutters zoom off to Mars to sort things out. Full of puzzles, Zak also features movie stories to update your progress in this wacky arcade adventure.

Ubi taps a new vein

French software house UbiSoft also has at least five titles planned for this year. Distributed by Electronic Arts, Jean-Louis B.A.T. and Final Conquests all feature equally very graphics to those of Night Hunter and Skateball, the first releases (already on their way). In Night Hunter you get to play Dracula on a disk to clean search for blood in and around

your 3D-screen castle. As the blood still belongs to various characters wandering around - well we won't stick our necks out by telling you what you'll have to get your teeth into. Also out real soon is the ST version of Skateball. Suffice to say we've reviewed the Spectrum version elsewhere this week, so you can check out the game by there.



• Left: Skateball on the ST

• Right: Night Hunter on the ST



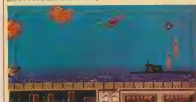
• Ill Empire

Reline in 89

Rainbow Arts, the Düsseldorf-based software publisher, has announced five titles for release on Amiga, ST, PC and C64 on its Reline label. Dyer SF puts you in post-holocaust mode as the controls of a super-chopper attempting to land robot troops on a Pacific island, whilst Legend of Faergal finds you role-playing your way through 1,200 rooms set in eight different dungeons against 80 types of opponent.

In Window Wizard you are to get up-and-running through nine levels of animated comic-style window-cleaning and in Adventures in Arabia you're searching for the treasures of a Sultan with the help of swords and magic.

Best of the bunch, though, looks to be Ill Empire, where you're the President of a multinational oil enterprise. This mouse-driven simulator offers you the chance to buy oil fields, purchase company stock, prospect drillings, order expert reports and hire investigators in a bid to become the new Esang.



• (Above) Window Wizard; (Below left) Dyer SF; (Below right) Legend of Faergal





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What you see... is what you see

Peter Worlock continues his guide to understanding printers, and explains how your computer can show you one thing while your printer has other ideas...

In the first two parts of this series on printers, we've seen that there are a large number of factors to be considered in deciding which printer to buy for use with your computer, and in getting the computer and printer to talk to each other.

And after all that, we've only made a relatively brief introduction to getting the printer to output a file in more or less plain text.

Once upon a time that would have been enough, but no longer: many users want to print graphics, and if you have an interest in any kind of desktop publishing you'll want both graphics and a variety of typefaces, type sizes and type styles.

However, so far as your printer is concerned, there's no difference between text and graphics (unless it's a daisy-wheel, and for our purposes daisy-wheels don't count).

We've already seen that when you computer sends out text it's actually sending a string of numbers that form the ASCII code. But when those numbers arrive at the printer, the printer converts them into a series of dots — just like graphics. Everything is dots.

It took computers a long time to catch up with this notion and only the Macintosh and Amiga use

this method as their standard way of displaying things on the screen. However, any computer with a laser display can use the same process, and that's what desktop publishing and other graphics software does. The method allows any computer to use different typefaces and fonts as well as graphics.

WYSIWYG

Owner of Research Tech Turner once told an audience "What you see is what you see — it isn't necessarily what you get!" She probably had something else in mind, but Tina could have been talking about computer printers.

It's obvious when you think about it that the only way of achieving true WYSIWYG is where every pixel on screen corresponds to a single dot on the printer, but that isn't what people want when they talk about WYSIWYG. Such a printer would be considered very crude.

For example, most cheap dot matrix printers offer a resolution of about 120 to 150 dots per inch. On a standard PC monitor the display area is about 10" wide by 7.5" deep, and a laser mode most computer display about 640 dots horizontally by 300 vertically. That means that the average PC display gives a horizontal resolution of 64 dpi, and a vertical resolution of less than 30 dpi.

This isn't a number of obvious consequences. The first is that few computers display square pixels, whereas many printers print square dots. Secondly, if you draw a square on the screen, it isn't really square. It may appear square but that's only because the program that does the drawing is making allowances for the computer's display.

You can prove this easily. Using any language you like, draw a square box by using the language's own graphics commands, but by carrying



• "What you see... it isn't necessarily what you get!"

on 50 horizontal pixels for the top and bottom sides, and 50 vertical pixels for the left and right sides. What you get is an upright rectangle.

Seriously, when you come to print out a document, you'll get a hopelessly distorted image if you simply print dot for dot. You have to allow for these possible sources of distortion: the computer display resolution, the printer's output resolution, and possibly of non-square pixels at both the computer and printer ends.

Once again, we're back to the importance of printer drivers — without the right driver for your software and printer, you'll be very lucky if you get anything like a decent printer.

Font factors

When printing typefaces, slightly different considerations apply.

To begin with, you have to take account of the basic problems outlined above. Basic software packages get round the problem by providing two sets of fonts: display fonts and printer fonts.

These are separately (and carefully) designed to measure the differences that arise from the different resolutions and pixel sizes. However, a further look at the mathematics shows that true WYSIWYG remains virtually impossible.

Suppose you want a 12pt typeface (about a sixth of an inch). If your printer has a resolution of, say, 150 dpi, your characters need to be 150/6 or 25 dots high. So far, so good.

Now you need to design your display font. If your display has a vertical resolution of 28 dpi (not uncommon) your characters need to be 28/6 which equals 4.66 pixels. Obviously, you're not allowed to use fractions of pixels, so you need to use five pixels which means your display font is now slightly larger than 12pt. No WYSIWYG.

[One reason for using pixels in the Macintosh is that Apple designed the Mac to display square pixels at 72 dpi — exactly the right resolution for displaying typefaces and another reason why the Mac excels at desktop publishing.]

The difference between display fonts and printer fonts brings up another consideration. A machine like the Amiga comes with a number of display fonts in different sizes, most near printers come with a number of different pixel fonts — but the fonts in your computer will do this, it does matter the fonts in your printer.

This can lead to endless confusion, but there are ways round the problem. At the simplest level you can simply fudge — use a display font that looks pretty close to one of your printer fonts and make allowances for the differences.

A better solution is offered by printers that accept downloadable fonts. "Downloadable" sim-

Technobabble

A weekly assault on computer jargon

RGB • Composite • RGB

RF

The simplest form of display interface, RF is the means of putting a computer image onto an ordinary TV. All of the older Bit computers (Spectrum, C64, BBC etc) have RF modulators built in. Most versions of the Amiga ST also support this (look for M for modulator in the title, so STFM and STFM are C64). The Amiga doesn't support RF — you need a separate modulator which is now being bundled with the A500. The catch is that you get a really pretty picture.

Composite

Composite video is the next step up in display quality. The name derives from the fact that the various bits of the signal — colour, brightness, etc — are all banded up together to form a composite signal. Most monochrome monitors use a composite interface, and some colour monitors like that for the C64. Display quality is much better than RF, but less than brilliant.

RGB

Derived from the fact that it includes Red, Green and Blue signals, RGB provides much the best picture quality. However, there are now a number of variations in RGB which can be crucial.

Early RGB monitors were digital devices — that is, the shades of colour were increased in fixed (and digital) stages. So they could display only a limited range of colours — perhaps only 16 shades. The BBC Micro, C128 and PC CGA use digital RGB.

A variant on digital RGB is known as RGB because it incorporates an extra signal governing colour intensity.

The new computers support a much greater range of colours: 512 on an ST, 4096 on an Amiga, and more than 250,000 on a VGA-equipped PC. Digital signals are insufficiently flexible to accommodate this range, so these computers require analog RGB monitors which provide a near-infinite "sliding scale" of colour shades.

Infuriating!

The problems which make you want to throw it all away
and what to do about them

"I was cleaning my disk
when it accidentally went off
and killed my files"

Problem: Disk housekeeping is one of those chores that needs to be done occasionally if you want to make the most of your disk space and avoid cluttering up disks with unwanted files. Perhaps you simply want to delete a range of old files that aren't needed, or you may want to copy files to an archive disk and delete the originals.

Unfortunately, even experienced users make occasional mistakes, sometimes deleting a file they wanted to keep, or copying one file on top of another thereby overwriting the wrong file.

There are physical accidents too. Disks, especially 5.25" disks, are relatively fragile and if you bend or crush them, or expose them to a magnetic field, you can lose data.

Solutions: There are a variety of tools available that can sometimes salvage accidentally deleted files, or recover at least some data from a damaged disk or partially overwritten file (if a file has been completely overwritten there's no hope - it's gone forever).

On the PC, PC Tools Deluxe is one of the best tools for recovering deleted files and other damaged data. Others include Miramonte's File Rescue Plus and The Macs Diskette.

OS/2 owners should try KPFUG, whose membership secretary is Jack Cohen, 33 Brancaster Road, Newbury Park, Hurd, Essex IG2 7EP. A useful OS/2 users group is at 28 Goshay Meadows, Turnspice Place, London WC1E 7HP.

There are commercial disk packages like Tunes's Toolkit IV which provide a complete toolbox for manipulating disks. DataL also produces a similar toolbox for the ST, as does Evesham Micro with its Director ST but these really are dangerously powerful for beginners. A better bet for ST beginners would be H&K's Saved!

Amiga owners are very badly served in this area and it appears that if you accidentally delete a file on the Amiga you can forget about it. Although there are disk editors around (for let you fiddle with disks at a very low level), like all such tools if they can do more harm than good in the hands of a novice.

There is hope for accidentally corrupted disks, though - AmigaDOS includes a recovery program called DiskDoctor which can usually salvage some of your data from a corrupted disk.

• Don't throw it all away
- maybe your computer just needs
a little understanding

Fear and loathing at the disk drive

Problem: Unless you're fortunate enough to own a Macintosh or an Atari ST (the nearest thing to a Mac), your computer will require that you master a collection of arcane commands known as the disk operating system (DOS).

At least, if you hope to do anything remotely ambitious with your computer - writing, manipulating numbers or other data, playing music, creating graphics - you have to get to grips with disks and DOS.

Even if you confine yourself to playing games you can only postpone the dreaded moment - eventually you'll come across a game that insists: "To save a game you require a blank, formatted disk". Now you have to format a disk, and that means using DOS.

Solution: The ways and means of performing the common DOS activities change from machine to machine, but they all come down to four tasks that you should learn.

Format: Preparing a blank disk for use by your computer.

Directory: A way of seeing what files and sub-directories are on a disk (usually takes the form DIR, but also DIRECTORY, CATALOG, CAT or FILES).

Copy: Moving files from disk to disk.

Delete: Removing files from disk (also called "erasing", "scrubbing" and "killing").

Atari ST owners are lucky in having one of the easiest to use operating systems. GEM on the ST uses icons (small pictures) and menus to perform these tasks and even the most nervous user can master them within a few minutes.

Owners of other machines are not so lucky. MS-DOS is notoriously difficult to beguile, and Amiga owners are, if anything, even worse off (see Working out with Workbench). However, there are easier ways of using DOS on most

machines than the bare-bones systems provided by the manufacturers.

For the PC there are non-driven systems like GEM and Windows which can make things easier, although these are drawbacks: more disk swapping than normal, extra memory overheads, and a longer start-up time. But if you can put with these limitations GEM or Windows make MS-DOS a lot friendlier.

If you don't want the hassle of GEM and Windows, there are alternatives, known collectively as "menu-driven front-ends", which simply means they sit in front of DOS and provide a series of menus for controlling the software.

Two of the best and best-known are The Norton Commander, and PC Tools Deluxe which are available from most good dealers and will cost between £40 and £50. There are also similar public-domain programs.

Owners of older machines like the C64 or CPM systems are not left out but you best bet is to try user groups who maintain libraries of useful public-domain software. With a few polite enquiries, you should find a lot of menu-driven DOS shells for your machine.

C64 owners are once more best advised to head for ESD: the home of the very useful ESDUG. It has a very strong public-domain library.

Such DOS managers usually allow you to perform the most-used DOS functions without having to remember the correct syntax or the order in which filenames are given.

Some also provide what's called a "point and shoot" facility, allowing you to easily select files from the disk directory and act on them, perhaps for copying or deleting, or for actually running the chosen program.

For beginners, they can make life a lot simpler and reduce the danger of accidentally damaging your data.

3-bit computers like the C64, Spectrum, Amstrad CPC and PCW. Technically, that limit is 64K, although it is possible through various fudges to exceed more than that. However, you'll find that most of your memory above 64K gets used as a RAM disk.

The IBM PC and compatibles face the same problem, although on a different scale. Here the limit is 1MB, and while many PCs will take up to 1MB of RAM, the extra is again used as a RAM disk.

So on these machines, it's generally better to buy a second disk drive. Although RAM disks are very useful, a physical drive is more so.

On the ST the solution is less clear and really depends on what you're using your ST for. If it's game-playing, word processing and other straightforward tasks, a second floppy drive (or a hard disk if you can afford it) is a better choice than one RAM.

If, however, you're into memory-intensive work, for example serious graphics applications, you should probably reckon on 1Mb of RAM as the minimum.

On the other hand, Amiga owners are advised to go the other way. Because graphic power is the Amiga's strength, all Amiga software tends to be memory hungry. The problem is compounded by the fact that the Amiga's operating system is a dog and its disk drives are terribly slow.

Therefore, extra memory is more useful than a second drive. Even though most games software uses the standard 512K, any other applications will work better with 1Mb, and 2Mb or more is quickly becoming desirable.

"My printer makes a hash of it"

Problem: One of the most common - and most irritating - problems you can run into is getting your printer to properly print the hash and pound characters.

The pound character arises because of the Americanisation of computers - most computers and printers default to an American character set which includes the \$ symbol, but not the £.

Printer manufacturers got around the problem by providing alternative character sets which do include the pound sign - but instead of substituting it for the \$, they dropped the hash sign.

This means that as a general rule you can have either the pound sign or the hash, but not both. And while that might sound OK in theory, in practice it doesn't work at all well.

First, Murphy's Law dictates that if you want the pound sign, your printer will produce hashes, and vice versa.

Secondly, there are users who want both. For example, most of us will have at least an occasional need to refer to money in our letters and other documents, but programmers (especially machine-code programmers) also need to use the hash symbol.

Thirdly, a further complication arises when you're using a computer with a keyboard designed for the US market (usually Taiwanese PC-compatibles). Here, you may not even have a pound symbol on the keyboard.

Solution: Solving the problem has a number of aspects.

First, if you have a pound sign on the keyboard, that key will generate the correct code. If you don't, use the hash key instead.

Second, you need to configure your printer so that it is using the British character set. If, when you want a pound sign you get a hash instead, your printer is certainly using a foreign character set. Refer to your printer manual to find out how to select the British character set, but it usually involves the setting of several key switches called dip switches.

Fourth, to use the hash character, you need to select a US character set through software. Epson-compatible printers do this by using an escape code sequence:

CHS27; "C" CHS29;

and to switch back to British:

CHS27; "C" CHS29;

(If your printer is not Epson-compatible, you'll need to check your manual for the equivalent command.)

The easiest way to execute the command depends on your machine. On an older 8-bit computer with Basic built in you can send the control string by `PRINT`ing the line exactly as shown above.

On other machines you can do that, but that will involve loading Basic first. A better idea is to create a small program in machine code or any compiled language that will produce a standalone program that can be executed directly. Alternatively, you'll probably find that your word processing software will allow you to send precise control codes.

Murds in a wuddle?

Problem: Another irritating problem often encountered in printing is getting the wrong amount of text on a page. Either your documents appear with acres of white space at the bottom of each page, or each page becomes slightly misaligned so that the text starts lower and lower on subsequent sheets.

Growth in the spring

Problem: In the first flush of enthusiasm after buying your new computer, all seems well with the world. If you've never owned a machine before this isn't surprising, and if you've just upgraded from an older 8-bit system you'll obviously be delighted with your state-of-the-art technology, with disks instead of tape cassette and enough RAM to make you feel positively apogeeophilic after the confines of a 64K computer.

Oddly enough, the problems are worse for owners of machines like the ST and Amiga, and they arise from an old Polish proverb. The fact is, software always demands a little more than your current system can deliver.

On machines like the Spectrum and C64, programmers knew what the limitations are, and they work within these limits. That isn't true of the ST and Amiga. Your ST may only have one disk drive, but programmers know you could have three or four. Your Amiga may only have 512K of RAM, but programmers know you could have 8Mb.

Solution: Reach for the checkbook.

Actually, that's only half a solution, since - unless you have unlimited funds - you face an instant dilemma: do you buy an extra disk drive, or more memory?

The answer depends on the computer you own. Many machines are strictly limited in the amount of memory they can actually use, that include all

This is also caused by a combination of software and hardware.

At the printer end, your printer will expect to be using paper of a certain length, depending on the setting of some dip switches or a single switch on the control panel if your printer has one. Usually the choice of paper is between two lengths giving either 66 or 72 lines per page.

This is a particularly irritating nuisance, since lines cut page obviously depends on the size of the type, but it is usually worked out on the basis of no more than 11 or 12 inches long. [More modern printers may be more flexible in allowing a variety of paper sizes, but the principles are the same.]

So your first task is to set the printer to handle the correct size of paper.

Secondly, you need to match up the settings in your software on that, for example, your word processor understands what paper your printer is using. How you do this varies enormously from computer to computer and from program to program, and a search involves a lot of trial and error, and a great deal of wasted paper.

Working out with Workbench

Amiga owners have particular difficulties with their machine's operating system - a big, clumsy and slow collection of commands by the name of AmigaDOS.

AmigaDOS is split into two parts: the CLI and Workbench. The latter is an icon-driven system, supposedly like the Mac and Gem or the ST, but in fact not a patch on either. The CLI is a command-driven system, like MS-DOS or CP/M, but again not as good.

There are problems with AmigaDOS apart from the lack of speed. For example, all other operating systems make the most-used commands (FORMAT, DIR, ERASE, COPY) memory resident - in other words, they are always available.

AmigaDOS doesn't. Every time you want to perform one of those commands, the Amiga loads the instructions from disk. So unless you have two disk drives, you end up doing an awful lot of disk-swapping.

The best answer is the inherent is to make use of the Amiga's RAM disk facility to devote the most-used commands a relatively accessible slice. Here's how to do it:

1. Make a backup of your Workbench disk.
2. Using the backup disk, boot your Amiga then enter ED by entering @ the CLI `SETSTARTUPSEQUENCE`.
3. Go to the end of the file and below the last two lines



Amiga 500 (Flashed by AmigaDOS)

[Flashed and Verbs < n>] add the following:

IMMEDIATE RAM-C
COPY C RAM-C
ASSIGN C RAM-C
CD RAM

4. Press ESC then I and press RETURN.

This will save the modified startup file to disk.

Now reboot the Amiga and a DOS file will be automatically created on the RAM disk, and your Amiga knows to look in the RAM DOS for commands like DIR, COPY and so on.

The drawbacks to this solution are that you obviously lose quite a lot of precious memory, so some applications won't work. Also, every time you reboot your Amiga, the RAM disk is wiped so you have to reload the DOS commands.

The long-awaited Workbench 1.3 will solve the latter problem, but, a memory expansion board is the only solution for the former. However, at least some of the time, this method will make your Amiga quicker and more pleasant to work with.

The Good Life

Here are five utilities that will make life with your computer a good deal easier and less stressful - and even better is the fact that you will usually be able to get them either very cheaply, or completely free through public domain libraries, whatever computer you own. (The last three really need to be used in conjunction with expanded memory.)

1. RAM disk

Some computers - like the Amiga and most MS-DOS machines - have a RAM disk utility built in to the operating system; others, like the ST, require you to get one from other sources.

A RAM disk works just like a normal disk drive, but much, much faster. The only disadvantage is that if your computer crashes you'll lose any whatever data you had in the RAM disk at the time. But if you use the RAM disk for your application programs and your physical disk for data storage, you're looking to worry about.

A RAM disk can be especially useful on a single-disk computer when making disk copies since it reduces the number of disk swaps needed.

2. Cache

A disk cache is an area of memory that is set aside as a large buffer between main memory and the disk. The driver part is the cache manager software which sort of sits in the background, like a supervisor, watching how your programs use the disk.

When the supervisor spots data, or program code, that is being regularly moved between memory and

the disk, it starts to stuff that data into the fast cache RAM rather than the slow disk. This can make software that relies heavily on disk access run many times faster than normal.

3. Print spooler

A print spooler is a utility program that resides in the background of your computer's memory. It only comes into action when you try to print a document.

Normally, printing will fully occupy your computer, tying up the machine until the last of the data has been sent to the printer. A spooler takes over management of the printing task, simply sending out data as and when the printer can handle it, but allowing your computer to get on with other tasks.

Spoolers can work from physical disks, but this tends to slow down your machine since it will usually pause in any task while disk access is taking place. But used in conjunction with a RAM disk, a spooler can be fast and highly efficient, getting on with the printing tasks with little or no disruption to you or your computer.

4. Pop-ups

Pop-up programs are small utilities that can be used from within other programs. Under WIMP environments like those on the Macintosh, ST and Amiga they are usually called desktop accessories, but the principles are the same.

There are many kinds of pop-ups, from name and address lists, notepads, docks and calendars to complete games. Which you'll find the most useful depends on what you use your computer for, but most come in collections of calendar, notepad, calculator, anyway.

Think of the number of times when you're using your computer that you need to make a quick calculation, or check a date. A calculator that appears on the screen at the press of a key, or a couple of movements of the mouse, can save you a lot of time otherwise spent doing longhand multiplication and division, or scribbling a desk drawer looking for your electronic calculator.

5. Macro recorder

Macros are like recordings of key-presses which can then be assigned to a single control key. So, for example, you could record a macro at the commands to backup all files of a certain type, and assign that macro to CTRL-B.

Now, whenever you type CTRL-B, your computer will execute the necessary string of commands to make the backup.

Macros have, almost limitless uses, and in addition to saving you a lot of typing, they can reduce the need to remember complex DOS commands.

For example, you only need to look up the precise form of a command when you record the macro, after that you can forget the complexities and just remember the single CTRL-key that executes the command.

PC-compatible owners are the best served when it comes to macro utilities, with commercial products like Borland's Superkey, as well as public domain offerings. Such programs have been slow to appear on the ST and Amiga thanks for macro-recording have appeared on the Macintosh so that you find the problem but if you need one, check it out.

It brings a whole new meaning to 'two-finger typing'.


"How do I find out more?"

The whole subject matter of personal computing is constantly changing with new hardware and software products arriving almost daily, and new technologies arriving from the research lab to the High Street store. Just when you master one subject, you're confronted with several more.

Somebody once said there are two kinds of knowledge: what you know, and what you *don't* find out. A subscription to *New Computer Express* instantly makes you one of the most knowledgeable ones around because with Express you can find out just about everything.

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"You've been a better Club Secretary since we bought you a typewriter, Jim"



Everybody needs a Portable Typewriter. School, high-school, business, men, women, doctors, lawyers, teachers, accountants—and the family printer—need a home typewriter. It's portable for carrying to school, office, home, work, etc. Very simple in construction and operation. Weighs only 11 lb., size 13 1/2" x 12" x 3 1/2". Complete with handsome carrying case. For full product details, send coupon today—we apply to your local Dealer or Supplier.

HOME PORTABLE TYPEWRITER

Assembled in Great Britain by British Labour
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TIMES HAVE CHANGED...

But the problems haven't

There was a time when all you needed to create the right impression was a good typewriter. Times have changed since Jim got his Home Portable, but the problems are still the same. From multi-national companies to the local squash club, everyone wants their printed material to be the best.

Until now Jim wouldn't have had much choice. He could do the job himself on his trusty Home Portable - or his word processor - or put the work out to a design studio and have it typeset. And he'd pay the price - with low quality or high costs.

Now there's a new choice. One that gives you the quality you'd expect from a studio, at a price less than some people might pay for a word processor! Timeworks Desktop Publisher turns your PC and printer into an instant electronic print shop.

What's even better is the unique blend of publishing power, versatility, and ease of understanding that Timeworks Desktop Publisher gives you. And there's

a Guided Tour tutorial to get you up and running in under an hour! No need for sophisticated hardware either. Timeworks Desktop Publisher works equally well on a \$12k twin floppy PC with a 9-pin matrix printer, or the latest 386 PC or PS/2 driving a Postscript laser printer. So you don't need to throw your software away when you upgrade your system.

Jim would have loved Timeworks Desktop Publisher. Isn't it just what you've been waiting for?

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- Choice of page sizes and layouts, with selectable column guides, plus on-screen rulers to show you exactly where you are.
- Wide variety of built-in fonts, sizes and styles.
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- Built-in text editor with Search & Replace.
- Import text from leading word processors including 1st Word Plus, WordStar, Word Perfect and Microsoft Word, plus ASCII files.
- Import picture files - line art or bit image - from GEM applications like Draw, Paint, or Scan, plus PC Paintbrush, Lotus 123, and others.
- Automatic text reflow during edits and layout changes.
- Typesetting functions include kerning and leading.
- Paragraph style allow you to repeat styles easily.
- Style sheets for standard page layouts.
- Left and right hand master pages.
- Automatic hyphenation.
- Bulleted paragraphs.

"To my mind its ease of operation and flexibility probably make this the most powerful DTP package around".

Clair Mainwaring, *Amstrad Professional Computing*, September 1988

"The software supports all the major features offered by Ventura, plus a few more... Timeworks DTP seems to represent remarkable value for money".

Desktop Publishing, March 1988

GST

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HELP

Sound memory

I am considering buying a sound sampler for my ST but first I'd like some advice. A friend told me that digital sound needs more memory than a 520ST has - is this true? And which make of sampler would you recommend? Also, how can I use the sampled sounds in my own programs.

Andy Miles, Gushere

Samplers, or digitisers, work by converting an analog audio signal into a digital form that the

More importantly, it's best to go for a sampler that offers a range of sampling rates, measured in kilohertz (thousands of cycles/samples per second). CD-quality sampling is around 44kHz so any sampler offering samples of around 40kHz is going to be pretty good.

The catch is that sampled sound ends up in memory. Your hard is wrong - the 520ST can happily accommodate sound samples, but the question is how much?

Most digitisers grab 8bit samples; at 40kHz you're grabbing 40,000 bytes per second, so at that rate clearly you're going to run out of memory on a 520ST at about 12 seconds. But similarly, if you halve the sampling rate you double

the length of the sample so at 8bitz you'll get a bit more than a minute's worth on your 520ST.

Using samples in your own programs can be quite simple since most bestselling ST packages provide routines you can adapt for your own purposes for Basic, C and assembly language.

As to which to buy, that's really a question of budget. For £50 you can get Pro Sound Designer from Power Computing/Definitelink (0234 273200), but if you can stretch to £70 you could buy the slightly better IS Digitiser from Innovative Software (0903 700904).

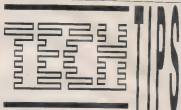
File upgrade

I have just upgraded from an Amstrad PC1640 to a PC1640. Unfortunately, after getting rid of the PC1640 I realised I would need to transfer a lot of data from my old 3" disks to the PC1. I certainly don't want to copy it all in again from printouts.

Is it possible to add a 3" drive to the PC1640, and what other hardware/software would I need to accomplish the transfer?

Philip Johnson, Esher, Surrey

It is possible to connect a 3" drive to



The place for your questions and suggestions

your PC, but getting MS-DOS to recognise the drive is a different matter. Under the circumstances I wouldn't recommend it anyway - you'll be spending money on a completely non-standard drive that ultimately will be more trouble than it's worth.

An alternative would be to buy a PC1640 hook-up to your PC via an RS232 cable link, and transfer your data that way. But that's a lot of hassle since you'd have to find or make a suitable cable.

So... you could file up to your PC via an RS232 Services 2 reg on 01-894 4155. It undertakes to transfer data between just about all disk formats including PC16 to PC. Unless you've got dozens of disks this will work out cheaper than buying any kind of add-on hardware for your PC. It will also be a lot easier.

Multi-file movement

If you're tired of spending half your waking hours laboriously shifting those ST files about one by one, there is a solution. Simply select the first file you want to move as normal, then hold down the SHIFT key and click on the others. Hey presto! You can now move up to three million files all in one go.

Stephen Dawkins, Amley, Leicestershire

3D binge

I am interested in the subject of

three-dimensional modelling and ray-tracing and would like to buy a computer system capable of exploring these areas. Can you recommend a suitable system and software for my purposes? Money is no object.

AD McKay, Newcastle upon Tyne

Money is no object!! How, you say, does what effect a phrase like that can have in a society like ours? Consider yourself lucky we haven't printed your full address.

You might consider a Cray, or a Sun or Apollo workstation - although even if money is no object, the size of your house might become a factor. A better bet might be a Mac II with 24-bit colour video board, 19" monitor and 3600k hard disk. A very nice system which should leave you change out of £20,000.

Or are we really talking a little less money than that? What about a 386 PC with Transcend add-on processor - with savings about £12,500?

Or do you really mean that a hundred gig here or there isn't important? In which case you're probably looking at an Amiga. Although the ST is capable of 3D modelling it has too limited a colour range to be really good, whereas the Amiga's 4096 shades make a world of difference in ray-tracing.

If your intended budget will stretch far enough, you'd be well advised to go for an Amiga 2000 rather than the 500, largely because you'll need expanded memory - as much as you can get - and the 2000 is a more expandable system. There are a number of suitable sys-

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can

puter can

manipulate the audio signal can come from any source - microphone, stereo, TV set - provided it can be plugged into the digitiser input. This latter is a small box of tricks that usually fits into your ST's cartridge slot.

The hardware is simply a piece of electronics that converts analog to digital - hence the name ADC, or Analog to Digital Converter (larger can be easy-sound).

The clever bit is the software which uses the digitised signals to drive your ST's sound chip, or a MIDI device. Some packages offer a more or less straight reproduction of the sound, others allow you to fool around with it - speeding up or slowing down the replay rate, playing the sample backwards, and so on.

TIP Better batching - take 2...

Oops! Eagle-eyed readers will no doubt have noticed our even-to-right bungle last week whereby the **Better Batching** box was rendered almost totally unintelligible. Here's what it should have looked like...

Simon Williams' tip in PC Update (Express issue 51) is a good idea, but I think the way he proposes it was very confusing. It can also only work, as he says, if your files fit onto one floppy disk.

I have a 15125D to which I have added an external 3.5" floppy drive that I used to use with my Sonnetris, and I always like to keep two copies of everything. The batch file I use is similar but makes use of the **XCOPY** command, which I find is more suited to the task it used in conjunction with the /m and /w switches.

I have included a demo batch file that can be used for hard drive users to show how it is done:

XCOPY OFF
CLS

(Users with DOS 3.30 can replace these lines with: CDWD OFF which I find easier)

XCOPY

XCOPY Backing up Documents, Texts and Letters.

XCOPY Please have disks ready

DOCS
XCOPY C:\WP*.* D:\A /M /W
IF ERRORLEVEL 4 GOTO DOCS1

(Use of the ERRORLEVEL can enable you to switch disk if the one in drive A becomes full otherwise control passes to the next command)

TEXTS
XCOPY C:\WP*.* T:\A /M /W
IF ERRORLEVEL 4 GOTO TEXTS1

LETTERS
XCOPY C:\WP*.* L:\A /M /W
IF ERRORLEVEL 4 GOTO LETTERS1

NOTE: Use of the /W switch to pause to enable you to insert disks as required. Also the /M switch so as only to back up files that have been added or altered since the last backup.

It also resets the archive flag on the original so that if the disk is A, becomes full then when the batch file loops back it will start with the last file that it could not fit onto the last floppy. The /W switch checks that the copy is the same as

the original.)

DOCS1

XCOPY

XCOPY PLEASE INSERT ANOTHER DISK INTO DRIVE A:

XCOPY

GOTO DOCS

TEXTS1

XCOPY

XCOPY PLEASE INSERT ANOTHER DISK INTO DRIVE A:

XCOPY

GOTO TEXTS

LETTERS1

XCOPY

XCOPY PLEASE INSERT ANOTHER DISK INTO DRIVE A:

XCOPY

GOTO LETTERS

END

XCOPY

XCOPY ALL FILES BACKED UP OKAY

R.J. Waller, London



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SPEX

Magic magnetic mag

A mag which is of high enough quality to be mentioned for free, though, is *Outlet from Choice software* (ix's Plus II, Spectrum, Opus Microdrive and tape-based read which picks up a passing mention last week after a reader enthusiastically recommended it).

If you're one of those people who think too much coverage is given to shoot-the-guessbooks type software, i.e. games, then they could well interest you, as the majority of its content is devoted to the more serious side of the

Spectrum: Each issue runs to about 2500 of programs, letters, articles, news, reactions and utilities. It's accessible from a menu on the disk sessions or leading results on line.

To be so very successful a tape recorder can really have to make good use of its format to compensate for the inconvenience of taping problems and not being able to hear it. In the past, for example, ClioNet devoted itself exclusively with a tape recorder to the audio of a narrative service. The program set of a high standard - not up to commercial efforts, but every better than the levels of findings which killed the computer just a few years ago. They stage from world utilities you won't find anywhere else, to graphical games and target games that winched at between the program are fully interactive within a tape recorder, moving board level news

The whole episode has a chilly atmosphere, and it manages to come across seriously without being too boring. In short, I was impressed. Coming from a cynical piano track, who wouldn't know an algorithm if it performed an exotic dance for him, that's a huge compliment.

If you're still not entirely convinced, Chirco supplies a free sample 3½-in floppy disk, a service which isn't actually available at the time of writing, though.

As a special introductory offer an issue of *Order* will set you back \$2.00, with Chemtec providing the disk or microdrive cartridge. All tape versions are \$2.75 (Stratige is a little more). *Order* is not available on 3-Disk yet, as there have been numerous problems getting disk access in QDS Basic.

The address I suggest you write to immediately is 605 Loughborough Road, Bristol, Leicesters LE4 6BL.

Free publicity

Now then, I don't know about you, but for me it's not just any magazine which sports a FREE gift on its cover. This fact no doubt explains the huge collection of computer mags strewn

about my brother.

The three spectrum-specific sides have creased into the old TWEET gift stickers at a big way. Hardly an issue appears on the shelves without a tape creased in the fold. A cautious consumer who has developed a second carafe, with each day stamping its words as rivals with increasing numbers of programs sponsored ones that tape. Four Sincere even chided two cassette on its sweet, Sincere's now? Time with these five tapes a whole may snort? Still, its not one to lack a gift cassette in the month - it's good to see them offering such consumer value to money.

Dugged play

flex from Manetho, in an addictive late show-
up I've been playing for dangerously long
periods of time this week. What's due? You
have too? Got, what a coincidence! Pistas
convenient, too, as it seems to be the only thing
I've not ate yet for

Specie sell-out

In past columns my criticism of Amstrad has been downright mean and nasty. My most venomous attacks were directed at the pricing of our computer. To dirty old me, £140 and £199 seem a lot to pay for what is basically an eight year-old machine.

My opinion doesn't count for much, apparently. If *Spectrum* sales this Christmas are anything to go by, Uncle A/Sugar was spot on. No exact figures have reached me yet, but initial impressions are very encouraging. The local Discos sold out of both +2s and +3s, surely a good sign!

Hopefully, the A3 sold in sufficient quantities to cause some quality software writers specifically for the machine, rather than just more cassette versions ported onto disk.

As any regular reader will have guessed by now, I'm a confirmed Spectrum freak (didn't know about the Spectrum 486 - E!). But even so, as loyal as I am, I'm more than a little surprised at the Spectrum's good showing this year. Naturally, I think our machine is the finest in the world, but when it's a screen-to-screen contest with an ST, Amiga, or G4 for that matter, it does tend to live up to its humble tag. 16-bit entertainment software is just so much more appealing and attention grabbing than 8-bit and, in particular, Spectrum software.

Who can solemnly swear they didn't drool enviously on seeing *Dungeons Master* or *Starflight II*? With Spectrum software, you have to wait to be grabbed. Of course, graphics and sound don't necessarily make for a good game, but if little Johnnie tests the latest coin-op conversion on the Amiga and the Spectrum, you can bet which one he'll lead Daddy towards. And it's for that reason the Spectry's enduring popularity amazes me. It bodes well for NIGT's place. And my job prospects.

Without further ado, the password to Level 1 is 180307301180986 (probably) (but you just have pediatric programmers? I don't think there was much chance of you guessing that one)

Adventurers Club

Henry Mueller of the Adventurers Club has been in contact. He was annoyed by the mention of adventures in issue 5, and is currently responding for a regular adventure column in this esteemed organ. The Adventurers Club is not Spectrum specific, but over 40 percent of its members are Spectrum owning and the bi-monthly magazine I saw had a large number of letters, reviews, questions and tips.

The club offers an extensive pool and telephone helpline and boasts some rather famous contributors - like Pete Austin of Level 9 and well-known advertising personage Mike Gerrard. I was pretty impressed. Write to 66 Memorial Road, London NW12 3BX for member ship details.

Endnotes

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The C64 Million Dollar Question

Do all know how popular the C64 is, but do you know that the machine has worldwide sales of just over 3.5 million units?

And being also almost the most successful of all the C64 line, the C64, then (it may well surprise to over 10 million).

The old C64 came a long way after its first notable appearance back in 1980. It had been thought that it would become the world's most popular micro-computer.

Demos

These days, many 800 demo writers are trying to push the machine to its limits by using techniques that originated on the Amiga, the TR also writers are looking for some animation from checked data in memory, as well as some demo on the Amiga. They often do the 64 in the country are simply being graphics showing the 64 in a way that could easily look out on TV.

These times show that the 64 can have as much as 22 years being shown for years in all directions while keeping the side borders open in all ways - at the same time having 16 speed as well as in the below borders.

Mania's top three

Amiga • **Thalman** • **09/09**, **02/09/02**
A super-sized album on which could easily be considered as a top-up, and which is the best of the game in any way to date. An

Wanted: Cheats

The Last Ninja 2 • **System 3** • **02/09/02**, **02/09/02**

Despite the dodgy marketing, rubber Shogun Star and other Ninja Master - Ninja Master - the, was a great blend of martial arts back-to-back with a good and arcade adventure.

Handy • **Thalman** • **02/09/02**, **02/09/02**

The latest addition to the range of steady-removable plastic-games, but, bringing a touch of fresh air to the whole scene. The first game from a bunch of demo creators called themselves The Boys Without Names... well, if the name fits, use it.

What ever happened to...

Rob Hubbard - The USA music maestro who took the UK for the various cities of California, USA last year - and was never heard of again.

Katakiki by Rainbow Arts was US Gold - the 8 Typecode that came out, maybe because it was supposed to be an official 8-Typecode on the C64. It's never really been.

Commodore SX-64 - Commodore's awful attempt at portable C64 computer.

Commodore 1280 - Commodore's equally disastrous C64 professional desktop computer.

The Perfect Match - Commodore's attempt at operating a successful football team.



• Robocop: See Cheat

It all started to go wrong when it chose Clive as the team to sponsor.

Cheats

Thanks to Robert, Troughs from West Virginia for the new title game in which the game is at, most powerful than he already is. Just load the game as normal, and over on the side page next the machine and type:

POKE 40150,0 for unlimited energy

POKE 40150,0 for unlimited energy

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Clock listing

1	B-40150 RESTORE
2	POKE 40150,0 HEADAPPOKE=LA=NDXL
3	DATA 102,169,182,141,21,3,169,13
4	DATA 141,20,3,89,96,32,204,192,6,178
5	DATA 182,182,4,389,0,183,157,0,4
6	DATA 232,204,4,309,245,183,0,159,180
7	DATA 157,4,232,224,32,204,245,183
8	DATA 18,172,45,192,201,50,240,238
9	DATA 45,192,96,188,0,415,182,173
10	DATA 7,183,201,185,240,4,238,2,193
11	DATA 96,169,176,141,7,193,173,183
12	DATA 201,181,240,4,238,6,183,96,183
13	DATA 176,141,6,193,173,4,183,201,185
14	DATA 240,4,238,4,193,96,169,176,141
15	DATA 4,193,173,4,193,201,381,240,4
16	DATA 238,3,193,96,169,176,141,3,193
17	DATA 173,1,193,201,185,240,4,238,1
18	DATA 183,96,169,176,141,1,193,173
19	DATA 193,201,186,240,4,238,2,193,96
20	DATA 169,176,141,3,193,169,177,141,1
21	DATA 183,169,176,141,3,193,141,4,193
22	DATA 141,6,193,141,3,193,96,173,17
23	DATA 209,13,141,17,209,169,13,141
24	DATA 25,209,169,127,141,13,220,169,129
25	DATA 141,26,258,78,49,234,32,225,192
26	DATA 173,0,193,201,178,209,11,173,1
27	DATA 182,201,181,209,3,16,152,192,96
28	DATA 195,197,201,6,208,8,195,189,141
29	DATA 24,152,141,38,192,201,3,208,8
30	DATA 169,197,141,24,192,141,36,192,32
31	DATA 32,192,36,0,178,177,136,176,180
32	DATA 186,181,182
33	POKE 40430,176 REM TIME 00 HOURS
34	POKE 40430,177 REM TIME 01 HOURS
35	POKE 40411,176 REM TIME 00 MINS
36	POKE 40412,176 REM TIME 00 MINS
37	POKE 40414,176 REM TIME 00 SECS
38	POKE 40415,176 REM TIME 00 SECS
39	STOP

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Back trouble

You know how it is with most adventures you get along fine for a while, and then all of a sudden you come up against some seemingly impossible puzzle and your stack fest. Remember that blasted Sabal job somewhere in *Montezuma's*? So all you brave and heroic adventurers out there having trouble with Level 9's Light's Back (ye old thing, heathens) or *Lancelot* well, I'm sure someone has the clue somewhere now available for these two mind-benders. Simply fill in the coupon supplied with the respective game and send me what he has in the true path. The only thing is, I always had a little quirk of I can't see "cheat". On the other hand, if I don't I doubt I'd ever get anywhere!

You must be jowling

Buyers mail-buycorers US Gold's New Year resolutions, which I'll see without volubility in a game as release faster games in 80 and concentrate on quality instead. I think working in has beyond a bit of 70's talk I would be very pleased (you thought I was going to be surprised didn't you?)

The thing is, US Gold really can do it when it's over 18 it produced a quite decent arcade conversion with 700, the entire decade *Demolition II* and impossible *Maniac II* and the accurate and highly

aggressive *Heroes of the Lance* (well, it finally appeared in the last days of 80, but he told). Any chance, by the way, you, lovely US Gold people, of getting out of *Pool of Radiance* on the CPC?

Of course, the other side of the coin (and, let's face it, a secret for those people) is that games which most reviewers - myself included - gave a right old stopping of actually sold by the tonne, even now retailers slaver with greed at the mere mention of *Out Run*. So what incentive does US Gold have to keep this resolution? You tell me.

One lesson I can forward to and hope on is to be betterly disappointed by the first taste of the deal signed with Location, which will be the new Indiana Jones game due for release in mid-81. I've always thought that India made the ideal central character for a game. Fancy replicating out on *Granada* (Dunbar, anyone?)

Christmas cracked

It's at this time of year your computer feels at its most as ordered you say do! All those games you ordered as gifts have been played well along for two weeks, for joyous at Christmas cracked and, therefore, so, is your CPC.

Getting a repair can be a little tricky though. Amstrad doesn't accept orders unless it packs them off to a contact repair shop which should be allowed to put a plug in a little, but should open up and fiddle with the sensitive bits of your precious com-



Advanced Dungeons & Dragons

• At least *Heroes* - and not before time, either - had a backstop. This is indeed the second if you machine is still under guard; see - give the responsible party ten minutes on-busbing a day, and they'll have a replacement sent to you, possibly before

you can. You should be a quite informed. Some repairs are actually charged. But they should be I was once charged nothing for a new set of connectors on an assistant, but not surprisingly many repairs are over-priced. Beware, for example, of any company which sells more than 50000 for sale, along which apparently expects no return (stealing, recycling etc.) - though admittedly horrendous and risk-free, even if they're physically harmed. Ask why a case is worth.

Short shopkeepers rejoice

20 Microsystems is to release an integrated accounts-business package for the CPC. The *Book Accounting System* costs £35.95 to disk (for IBM machines only) and includes a stock control program, with an invoicing system and sales ledger built in, together with printing routines to make hard copies of documents.

Though I can't pretend I use such software day in and day out (my bank manager kindly keeps me fully up to date with the state of my bank) for my 20 Microsystems' previous releases, such as the *Small Traders Pack* (which also came with a pack for short shopkeepers) have struck me as friendly, useful items ideal for a one-person company.

I've been impressed too by the excellent support it offers its customers - and that's according to the letter, not the former! So I think I'd recommend its new *Small Traders Club*, which offers help and advice as well as a special quarterly newsletter.

Membership is a modest £30 per annum, and if you do decide to give it a go I'd be glad to hear how you get on, and whether you think you're getting your money's worth. 20 Microsystems can be called on 0462 679106.

your grandfather's hair tied off old age. There are three main things to watch out for: first, find a local company, because if you can buy the computer back and forth, you'll have yourself the deadly "it's a bit of a pain" excuse. Next, make sure you get their phone number. You can't return them through Kimp on and so on. It's not unusual, but some people stand it out over if you give them a call a dozen.

Finally, get a quote beforehand. Some repairs are actually charged. But they should be I was once charged nothing for a new set of connectors on an assistant, but not surprisingly many repairs are over-priced. Beware, for example, of any company which sells more than 50000 for sale, along which apparently expects no return (stealing, recycling etc.) - though admittedly horrendous and risk-free, even if they're physically harmed. Ask why a case is worth.

The story so far

Now let's see if we've got the right computing with the Amstrad CPC outlives up. Amstrad changes 80 names to CPC Computing, merge with Amstrad Computer User, which now goes straight off to 150 plus two old boxes to focus.

Play the past subscribers, I say, who can't reach allegiance to Amstrad's *Advent*. Well, that's the best of course.

Steve Curry (editor),
Amstrad Action

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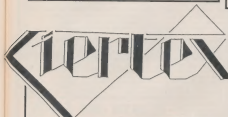
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